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Author Index

Animal Feed Science and Technology, volumes 83–89

Abdullah, N., see Jetana, T., 84 (2000) 167
Abdullahi, U.S., see Kallah, Mh.S., 84 (2000) 137
Abdulrazak, S.A., Fujihara, T., Ondiek, J.K. and Ørskov, E.R., Nutritive evaluation of some Acacia tree leaves from Kenya, 85 (2000) 89
Abel, H., Reply to "Letter to the Editor", 88 (2000) 133
Abel, H.j., see Römer, A., 83 (2000) 325
Abreu, J.M.F., see Bruno-Soares, A.M., 83 (2000) 75
Acamovic, T., see Mupangwa, J.F., 83 (2000) 139
Adesogan, A., see Wilman, D., 84 (2000) 33
Agrawal, D.K., see Ravi, U., 88 (2000) 121
Ahmad, T., Rasool, S., Sarwar, M., Haq, A.-u. and Hasan, Z.-u., Effect of microbial phytase produced from a fungus *Aspergillus niger* on bioavailability of phosphorus and calcium in broiler chickens, 83 (2000) 103
Alaviuhkola, T., see Laurinen, P., 83 (2000) 1
Albin, D.M., Wubben, J.E. and Gabert, V.M., The influence of hydrochloric acid concentration and measurement method on the determination of amino acid levels in soya bean products, 87 (2000) 173
Alexandre, G., see Archimède, H., 87 (2000) 153
Alvir, M.R., see Cajarville, C., 87 (2000) 203
Alzueta, C., see Treviño, J., 84 (2000) 155
Amado, M.A. Garcia, see Jones, R.J., 87 (2000) 287
Anil, L., Park, J. and Phipps, R.H., The potential of forage–maize intercrops in ruminant nutrition, 86 (2000) 157
Arakaki, L.C., Stahringer, R.C., Garrett, J.E. and Dehority, B.A., The effects of feeding monensin and yeast culture, alone or in combination, on the concentration and generic composition of rumen protozoa in steers fed on low-quality pasture supplemented with increasing levels of concentrate, 84 (2000) 121
Aranda, I.E., see Cabrera, E.J.I., 83 (2000) 49
Archimède, H., Boval, M., Alexandre, G., Xandé, A., Aumont, G. and Poncet, C., Effect of regrowth age on intake and digestion of *Digitaria decumbens* consumed by Black-belly sheep, 87 (2000) 153
Aregheore, E.M., Chemical composition and nutritive value of some tropical by-product feedstuffs for small ruminants — in vivo and in vitro digestibility, 85 (2000) 99
Arosemena, A., see Fadel, J.G., 85 (2000) 121
Ashbell, G., see Filya, I., 88 (2000) 39
Ashes, J.R., see Gulati, S.K., 86 (2000) 139
Ashes, J.R., see Kitessa, S.M., 89 (2001) 189, 201
Atuahene, C.C., Donkoh, A. and Ntim, I., Blend of oil palm slurry and rice bran as feed ingredient for broiler chickens, 83 (2000) 185
Aumaitre, A., see Freire, J.P.B., 87 (2000) 71
Aumaitre, A., see Seabra, M., 89 (2001) 1
Aumont, G., see Archimède, H., 87 (2000) 153

Bach, A. and Stern, M.D., Measuring resistance to ruminal degradation and bioavailability of ruminally protected methionine, 84 (2000) 23
Bal, M.A., Shaver, R.D., Shinners, K.J., Coors, J.G., Lauer, J.G., Straub, R.J. and Koegel, R.G., Stage of maturity, processing, and hybrid effects on ruminal in situ disappearance of whole-plant corn silage, 86 (2000) 83
Balcells, J., see Martín-Orue, S.M., 88 (2000) 59
Balcells, J., see Martín-Orúe, S.M., 88 (2000) 171
Bale, J.O., see Kallah, M.h.S., 84 (2000) 137
Ball, A.S., see Hill, J., 89 (2001) 83
Bárcena, G.R., see Cabrera, E.J.I., 83 (2000) 49
Barrios Urdaneta, A., see Nogueira Filho, J.C.M., 83 (2000) 145
Beauchemin, K.A., see Nsereko, V.L., 88 (2000) 153
Bechaz, M., see Jones, R.J., 85 (2000) 269
Beckers, Y., see Moujahed, N., 88 (2000) 219

PII: S0377-8401(01)00212-7

Bedford, M.R., Exogenous enzymes in monogastric nutrition — their current value and future benefits, 86 (2000) 1
Bedford, M.R., see Svihus, B., 88 (2000) 1
Ben-Ghedalia, D., see Yosef, E., 83 (2000) 115
Beynen, A.C., see Vissia, G.H.P., 85 (2000) 139
Bhatta, R., Krishnamoorthy, U. and Mohammed, F., Effect of feeding tamarind (*Tamarindus indica*) seed husk as a source of tannin on dry matter intake, digestibility of nutrients and production performance of crossbred dairy cows in mid-lactation, 83 (2000) 67
Bister, J.-L., see Mabon, N., 85 (2000) 111
Blas, E., Fernández-Carmona, J., Cervera, C. and Pascual, J.J., Nutritive value of coarse and fine wheat brans for rabbits, 88 (2000) 239
Blasi, D.A., see Reed, C., 88 (2000) 47
Böhme, H., Nutrition of Sows and Boars. W.H. Close and D.J.A. Cole; Nottingham University Press, UK, 377 pp., £ 50, hardcover, ISBN 1-897676-530, 89 (2001) 211
Bohnert, D.W., see Swanson, K.C., 86 (2000) 95
Boitumelo, W.S., see Madibela, O.R., 84 (2000) 97
Böttcher, W., see Dänicke, S., 84 (2000) 279
Boval, M., see Archimède, H., 87 (2000) 153
Bracht, J.P., see Kung, L., 84 (2000) 69
Brooks, A.E., see Davies, Z.S., 83 (2000) 205
Broudiscou, A.F., see Broudiscou, L.-P., 87 (2000) 263
Broudiscou, L.-P., Papon, Y. and Broudiscou, A.F., Effects of dry plant extracts on fermentation and methanogenesis in continuous culture of rumen microbes, 87 (2000) 263
Bruno-Soares, A.M., Abreu, J.M.F., Guedes, C.V.M. and Dias-da-Silva, A.A., Chemical composition, DM and NDF degradation kinetics in rumen of seven legume straws, 83 (2000) 75
Buraczewska, L., see Pastuszewska, B., 86 (2000) 117
Byers, E.B., see Gulati, S.K., 86 (2000) 139
Byers, Y.G., see Gulati, S.K., 86 (2000) 139

Cabral, F., see Seabra, M., 89 (2001) 1
Cabrera, E.J.I., Mendoza, M.G.D., Aranda, I.E., Garcia-Bojalil, C., Bárcena, G.R. and Ramos, J.J.A., *Saccharomyces cerevisiae* and nitrogenous supplementation in growing steers grazing tropical pastures, 83 (2000) 49
Cabrita, A.R.J., see Fonseca, A.J.M., 83 (2000) 173
Caffrey, P.J., see Kavanagh, S., 89 (2001) 49
Cajarville, C., González, J., Repetto, J.L., Alvir, M.R. and Rodríguez, C.A., Nutritional evaluation of cardoon (*Cynara cardunculus*) seed for ruminants, 87 (2000) 203
Campbell, D.R., see White, C.E., 87 (2000) 105
Campbell, R.G., see King, R.H., 83 (2000) 17
Carriquiry, M., see Marichal, M. de J., 88 (2000) 91
Carvalho, S., see Seabra, M., 89 (2001) 1
Casler, M.D., Culvenor, R.A. and Combs, D.K., Divergent selection for two laboratory predictors of voluntary intake: relationships among the predictors and leaf morphology variables, 84 (2000) 107
Castanon, J.I.R., see Ventura, M.R., 85 (2000) 279
Castrillo, C., see Martín-Orue, S.M., 88 (2000) 59
Cervera, C., see Blas, E., 88 (2000) 239
Cervera, C., see Pascual, J.J., 86 (2000) 191
Chanchai, S., see Dixon, R.M., 83 (2000) 261
Chandramoni, A.S., see Tiwari, C.M., 89 (2001) 119
Chandramoni, Jadhao, S.B., Tiwari, C.M. and Khan, M.Y., Energy metabolism with particular reference to methane production in Muzaffarnagari sheep fed rations varying in roughage to concentrate ratio, 83 (2000) 287
Chappelka, A.H., see Muntifering, R.B., 84 (2000) 243
Chaturvedi, O.H., see Mishra, A.S., 84 (2000) 257
Chaudhry, A.S., Rumen degradation in sacco in sheep of wheat straw treated with calcium oxide, sodium hydroxide and sodium hydroxide plus hydrogen peroxide, 83 (2000) 313
Chen, T.C., see Lu, G.W., 83 (2000) 159
Cheng, K.-J., see Lee, S.S., 88 (2000) 201
Chiou, P.W.-S., see Yu, B., 86 (2000) 39
Christensen, D.A., see Jones, R.A., 89 (2001) 97
Christensen, D.A., see Mustafa, A.F., 83 (2000) 301
Coblentz, W.K., Coffey, K.P., Turner, J.E., Scarbrough, D.A., Weyers, J.S., Harrison, K.F., Johnson, Z.B., Daniels, L.B., Rosenkrans Jr., C.F., Kellogg, D. Wayne and Hubbell III, D.S., Ruminal nitrogen disappearance from sod-seeded cereal grain forages in Northern Arkansas,Cobos, P.M., see Garca, C.C.G., () 0008300165Cobos, P.M., see García, C.C.G., 83 (2000) 165
Coffey, K.P., see Coblentz, W.K., 89 (2001) 17
Combs, D.K., see Casler, M.D., 84 (2000) 107
Conlan, L.L., see Kennedy, P.M., 86 (2000) 177
Coors, J.G., see Bal, M.A., 86 (2000) 83
Cotte, J.P., see Morisse, J.P., 84 (2000) 129
Crosby, D.D., see Muntifering, R.B., 84 (2000) 243
Cuddeford, D., see McLean, B.M.L., 85 (2000) 79
Cuddeford, D., see Moore-Colyer, M.J.S., 84 (2000) 183
Cullis, B.R., see Nandra, K.S., 83 (2000) 273
Culvenor, R.A., see Casler, M.D., 84 (2000) 107
Cunha, L., see Seabra, M., 89 (2001) 1

Cunha, L.F., see Freire, J.P.B., 87 (2000) 71

Dana, N., Tegegne, A. and Shenkoru, T., Feed intake, sperm output and seminal characteristics of Ethiopian highland sheep supplemented with different levels of leucaena (*Leucaena leucocephala*) leaf hay, 86 (2000) 239

Dänicke, S., Secondary plant products. *Antinutritional and Beneficial Actions in Animal Feeding*, John C. Caygill and Irene Mueller-Harvey (Eds.), Nottingham University Press, Nottingham, 1999, 129 pp. ISBN 1-897676-28-X, 85 (2000) 283

Dänicke, S., Jeroch, H., Böttcher, W. and Simon, O., Interactions between dietary fat type and enzyme supplementation in broiler diets with high pentosan contents: effects on precaecal and total tract digestibility of fatty acids, metabolizability of gross energy, digesta viscosity and weights of small intestine, 84 (2000) 279

Daniels, L.B., see Coblentz, W.K., 89 (2001) 17

Dass, R.S., see Verma, A.K., 87 (2000) 253

Davies, D.R., see Dewhurst, R.J., 85 (2000) 1

Davies, D.R., see Mauricio, R.M., 89 (2001) 33

Davies, Z.S., Mason, D., Brooks, A.E., Griffith, G.W., Merry, R.J. and Theodorou, M.K., An automated system for measuring gas production from forages inoculated with rumen fluid and its use in determining the effect of enzymes on grass silage, 83 (2000) 205

Dawson, K.A., see Strickling, J.A., 86 (2000) 205

de Blas, C., see Medel, P., 84 (2000) 13

de la Fuente, J.M., see Fernández, C., 86 (2000) 71

de Monredon, F., see Maaroufi, C., 85 (2000) 61

De Smet, S., see Van Nevel, C., 83 (2000) 89

De Wilde, R., see Van Nevel, C., 83 (2000) 89

Deaville, E.R., see Givens, D.I., 89 (2001) 69

Dehority, B.A., see Arakaki, L.C., 84 (2000) 121

Delaby, L., see Delagarde, R., 84 (2000) 49

Delagarde, R., Peyraud, J.L., Delaby, L. and Faverdin, P., Vertical distribution of biomass, chemical composition and pepsin—cellulase digestibility in a perennial ryegrass sward: interaction with month of year, regrowth age and time of day, 84 (2000) 49

Delgado-Pertíñez, M., Gómez-Cabrera, A. and Garrido, A., Predicting the nutritive value of the olive leaf (*Olea europaea*): digestibility and chemical composition and in vitro studies, 87 (2000) 187

DePeters, E.J., see Fadel, J.G., 85 (2000) 121

Derycke, G., see Mabon, N., 85 (2000) 111

Dewhurst, R.J., Davies, D.R. and Merry, R.J., Microbial protein supply from the rumen, 85 (2000) 1

Dhanoa, M.S., see Lister, S.J., 86 (2000) 221

Dhanoa, M.S., see Mauricio, R.M., 89 (2001) 33

Dias-da-Silva, A.A., see Bruno-Soares, A.M., 83 (2000) 75

Dixon, R.M. and Chanchai, S., Colonization and source of N substrates used by microorganisms digesting forages incubated in synthetic fibre bags in the rumen, 83 (2000) 261

Dobos, R.C., see Nandra, K.S., 83 (2000) 273

Dominguez-Bello, M.G., see Jones, R.J., 87 (2000) 287

Donkoh, A., see Atuahene, C.C., 83 (2000) 185

Dritz, S.S., see Grinstead, G.S., 83 (2000) 237

Drogoul, C., Poncet, C. and Tisserand, J.L., Feeding ground and pelleted hay rather than chopped hay to ponies. 1. Consequences for in vivo digestibility and rate of passage of digesta, 87 (2000) 117

Drogoul, C., Tisserand, J.L. and Poncet, C., Feeding ground and pelleted hay rather than chopped hay to ponies. 2. Consequences on fibre degradation in the cecum and the colon, 87 (2000) 131

Dunshea, F.R., see King, R.H., 83 (2000) 17

Eason, P.J., see King, R.H., 83 (2000) 17

Eastridge, M.L. and Firkins, J.L., Feeding tallow triglycerides of different saturation and particle size to lactating dairy cows, 83 (2000) 249

Edvardsen, D.H., see Svihus, B., 88 (2000) 1

Edwards Jr., H.M., see Kasim, A.B., 86 (2000) 15

El hassan, S.M., Lahlou Kassi, A., Newbold, C.J. and Wallace, R.J., Chemical composition and degradation characteristics of foliage of some African multipurpose trees, 86 (2000) 27

Elangovan, A.V., Verma, S.V.S., Sastry, V.R.B. and Singh, S.D., Laying performance of Japanese quail fed graded levels of neem (*Azadirachta indica*) kernel meal incorporated diets, 88 (2000) 113

Esteve-Garcia, E. and Mack, S., The effect of DL-methionine and betaine on growth performance and carcass characteristics in broilers, 87 (2000) 85

Fadel, J.G., DePeters, E.J. and Arosemena, A., Composition and digestibility of beet pulp with and without molasses and dried using three methods, 85 (2000) 121

Fairchild, F.J., see Reed, C., 88 (2000) 47

Farrell, D.J., Jibril, H., Perez-Maldonado, R.A. and Mannion, P.F., A note on a comparison of the feeding value of sweet potato vines and lucerne meal for broiler chickens, 85 (2000) 145
Faverdin, P., see Delagarde, R., 84 (2000) 49
Fernández, C., López-Saez, A., Gallego, L. and de la Fuente, J.M., Effect of source of betaine on growth performance and carcass traits in lambs, 86 (2000) 71
Fernández-Carmona, J., see Blas, E., 88 (2000) 239
Fernández-Carmona, J., see Pascual, J.J., 86 (2000) 191
Ferreira, R., see Seabra, M., 89 (2001) 1
Field, M., see Wilman, D., 88 (2000) 139
Filya, I., Ashbell, G., Hen, Y. and Weinberg, Z.G., The effect of bacterial inoculants on the fermentation and aerobic stability of whole crop wheat silage, 88 (2000) 39
Fiorentini, L., see Piva, G., 89 (2001) 59
Firkins, J.L., see Eastridge, M.L., 83 (2000) 249
Flachowsky, G., The Mineral Nutrition of Livestock. Third edition; E.J. Underwood, N. Suttle; CABI Publishing, Wallingford Oxon, UK, 1999, 624 pages, hardcover, ISBN 0-85199-128-9, £75.00 (US$ 140.00), 87 (2000) 147
Fleck, E., see Gulati, S.K., 86 (2000) 139
Fleck, E., see Kitessa, S.M., 89 (2001) 189, 201
Flores, M.P., see Ventura, M.R., 85 (2000) 279
Fondevila, M., see Martín-Orúe, S.M., 88 (2000) 171
Fondevila, M., see Nogueira Filho, J.C.M., 83 (2000) 145
Fonseca, A.J.M., Cabrita, A.R.J., Lage, A.M. and Gomes, E., Evaluation of the chemical composition and the particle size of maize silages produced in north-west of Portugal, 83 (2000) 173
Fox, D.G., see Ruiz, R., 89 (2001) 155
France, J., see Mauricio, R.M., 89 (2001) 33
Freire, J., see Seabra, M., 89 (2001) 1
Freire, J.P.B., Guerreiro, A.J.G., Cunha, L.F. and Aumaitre, A., Effect of dietary fibre source on total tract digestibility, caecum volatile fatty acids and digestive transit time in the weaned piglet, 87 (2000) 71
Fujihara, T., see Abdulrazak, S.A., 85 (2000) 89

Gabert, V.M., see Albin, D.M., 87 (2000) 173
Gallego, L., see Fernández, C., 86 (2000) 71
García, C.C.G., Mendoza, M.G.D., González, M.S., Cobos, P.M., Ortega, C.M.E. and Ramirez, L.R., Effect of a yeast culture (*Saccharomyces cerevisiae*) and monensin on ruminal fermentation and digestion in sheep, 83 (2000) 165
García, M., see Medel, P., 84 (2000) 13
Garcia-Bojalil, C., see Cabrera, E.J.I., 83 (2000) 49
Garg, A.K., see Ravi, U., 88 (2000) 121
Garnsworthy, P.C. and Wiseman, J., Rumen digestibility of starch and nitrogen in near-isogenic lines of wheat, 85 (2000) 33
Garrett, J.E., see Arakaki, L.C., 84 (2000) 121
Garrido, A., see Delgado-Pertíñez, M., 87 (2000) 187
Gasa, J., see Ouhida, I., 85 (2000) 183
Giboulot, B., see Maaroufi, C., 85 (2000) 61
Giger-Reverdin, S., Characterisation of feedstuffs for ruminants using some physical parameters, 86 (2000) 53
Gill, M., see Lister, S.J., 86 (2000) 221
Giri, S.S., Sahoo, A. and Pathak, N.N., Feed intake, digestibility, plane of nutrition and live weight gain by crossbred growing bulls fed on grainless diets containing different nitrogen sources, 83 (2000) 195
Givens, D.I. and Deaville, E.R., Comparison of major carbohydrate fractions and cell wall digestibility in silages made from older and newer maize genotypes grown in the UK, 89 (2001) 69
Givens, D.I., see Wilman, D., 88 (2000) 139
Givens, I., see Mauricio, R.M., 89 (2001) 33
Glen, E.F., see Kitcherside, M.A., 86 (2000) 125
Goelema, J.O., see Yu, P., 86 (2000) 165
Gollnisch, K., *Escherichia coli* O157 in Farm Animals. C.S. Stewart, H.J. Flint (Eds.); CAB International Publishing, Wallingford, UK, 1999, 244 pages, 22 figures, 22 tables, hardcover, ISBN 0-58199-332-X (£45), 87 (2000) 148
Gomes, E., see Fonseca, A.J.M., 83 (2000) 173
Gómez-Cabrera, A., see Delgado-Pertíñez, M., 87 (2000) 187
González Ronquillo, M., see Nogueira Filho, J.C.M., 83 (2000) 145
González, J., see Cajarville, C., 87 (2000) 203
González, M.S., see García, C.C.G., 83 (2000) 165
Goodband, R.D., see Grinstead, G.S., 83 (2000) 237
Gowda, S.K., see Tiwari, C.M., 89 (2001) 119
Grant, R.J., see Haddad, S.G., 86 (2000) 107
Griffith, G.W., see Davies, Z.S., 83 (2000) 205
Grinstead, G.S., Tokach, M.D., Dritz, S.S., Goodband, R.D. and Nelssen, J.L., Effects of *Spirulina platensis* on growth performance of weanling pigs, 83 (2000) 237
Gross, K.L., see Strickling, J.A., 86 (2000) 205
Guada, J.A., see Martín-Orúe, S.M., 88 (2000) 171
Gualti, S.K., see Kitessa, S.M., 89 (2001) 201

Guangyong, Z., Ruminant physiology: digestion, metabolism, growth and reproduction. P.B. Cronjé (Ed.); CABI Publishing, Wallingford, UK, 2000, 474 pages, hardcover, ISBN 0-85199-463-6, £65.00 (US$120.00), 88 (2000) 269
Guedes, C.V.M., see Bruno-Soares, A.M., 83 (2000) 75
Guerreiro, A.J.G., see Freire, J.P.B., 87 (2000) 71
Guibert, D., see Maaroufi, C., 85 (2000) 61
Gulati, S.K., Kitessa, S.M., Ashes, J.R., Fleck, E., Byers, E.B., Byers, Y.G. and Scott, T.W., Protection of conjugated linoleic acids from ruminal hydrogenation and their incorporation into milk fat, 86 (2000) 139
Gulati, S.K., see Kitessa, S.M., 89 (2001) 189
Gullord, M., see Svihus, B., 88 (2000) 1
Guo, Y., Tang, Q., Yuan, J. and Jiang, Z., Effects of supplementation with vitamin E on the performance and the tissue peroxidation of broiler chicks and the stability of thigh meat against oxidative deterioration, 89 (2001) 165

Ha, J.K., see Lee, S.S., 88 (2000) 201
Haddad, S.G. and Grant, R.J., Influence of nonfiber carbohydrate concentration on forage fiber digestion in vitro, 86 (2000) 107
Haddad, S.G., Associative effects of supplementing barley straw diets with alfalfa hay on rumen environment and nutrient intake and digestibility for ewes, 87 (2000) 163
Halim, R.A., see Jetana, T., 84 (2000) 167
Hamudikuwanda, H., see Mupangwa, J.F., 83 (2000) 139
Hanbury, C.D., White, C.L., Mullan, B.P. and Siddique, K.H.M., A review of the potential of *Lathyrus sativus* L. and *L. cicera* L. grain for use as animal feed, 87 (2000) 1
Haq, A.-u., see Ahmad, T., 83 (2000) 103
Harmon, D.L., see Strickling, J.A., 86 (2000) 205
Harmon, D.L., see Swanson, K.C., 86 (2000) 95
Harrison, K.F., see Coblentz, W.K., 89 (2001) 17
Harstad, O.M. and Prestløkken, E., Effective rumen degradability and intestinal indigestibility of individual amino acids in solvent-extracted soybean meal (SBM) and xylose-treated SBM (SoyPass®) determined in situ, 83 (2000) 31
Harstad, O.M., see Ljøkjel, K., 84 (2000) 83
Hasan, Z.-u., see Ahmad, T., 83 (2000) 103
Hedqvist, H., Mueller-Harvey, I., Reed, J.D., Krueger, C.G. and Murphy, M., Characterisation of tannins and in vitro protein digestibility of several *Lotus corniculatus* varieties, 87 (2000) 41
Hen, Y., see Filya, I., 88 (2000) 39
Herrero, M., see Nagadi, S., 87 (2000) 231, 241
Hill, J., Xiao, G.Q. and Ball, A.S., Effect of inoculation of herbage prior to ensiling with *Streptomyces achromogenes* ISP 5028 on chemical composition of silage, 89 (2001) 83
Ho, Y.W., see Jetana, T., 84 (2000) 167
Höhler, D., see Pack, M., 88 (2000) 129
Hollands, T., see McLean, B.M.L., 85 (2000) 79
Huang, R.-L., Tan, Z.-L., Xing, T.-X., Pan, Y.-F. and Li, T.-J., An in vitro method for the estimation of ileal crude protein and amino acids digestibility using the dialysis tubing for pig feedstuffs, 88 (2000) 79
Huang, W.-J., see Yu, B., 86 (2000) 39
Hubbell III, D.S., see Coblentz, W.K., 89 (2001) 17
Huonnic, D., see Morisse, J.P., 84 (2000) 129
Hussein, A.S., The use of step-down and modified constant protein feeding systems in developing pullets reared in hot climates, 85 (2000) 171
Hyslop, J.J., see McLean, B.M.L., 85 (2000) 79
Hyslop, J.J., see Moore-Colyer, M.J.S., 84 (2000) 183

Iji, P.A., Saki, A.A. and Tivey, D.R., Intestinal development and body growth of broiler chicks on diets supplemented with non-starch polysaccharides, 89 (2001) 175

Jabłecki, G., see Pastuszewska, B., 86 (2000) 117
Jacques, K.A., see Swanson, K.C., 86 (2000) 95
Jadhao, S.B., see , Chandramoni, 83 (2000) 287
Jadhao, S.B., see Tiwari, C.M., 89 (2001) 119
Jakhmola, R.C., see Mishra, A.S., 84 (2000) 257
Jalaludin, S., see Jetana, T., 84 (2000) 167
Jeroch, H., see Dänicke, S., 84 (2000) 279
Jessop, N.S., see Nagadi, S., 87 (2000) 231, 241
Jetana, T., Abdullah, N., Halim, R.A., Jalaludin, S. and Ho, Y.W., Effects of energy and protein supplementation on microbial-N synthesis and allantoin excretion in sheep fed guinea grass, 84 (2000) 167
Jiang, Z., see Guo, Y., 89 (2001) 165
Jibril, H., see Farrell, D.J., 85 (2000) 145
Johnson, Z.B., see Coblentz, W.K., 89 (2001) 17
Jones, A.W., see Nandra, K.S., 83 (2000) 273
Jones, R., see Wilkins, R.J., 85 (2000) 23
Jones, R.A., Mustafa, A.F., Christensen, D.A. and McKinnon, J.J., Effects of untreated and heat-treated canola presscake on milk yield and composition of dairy cows, 89 (2001) 97
Jones, R.J. and Palmer, B., In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG)

4000: comparison of six tanniniferous shrub legumes and the grass *Panicum maximum*, 85 (2000) 215
Jones, R.J., Amado, M.A. Garcia and Dominguez-Bello, M.G., Comparison of the digestive ability of crop fluid from the folivorous Hoatzin (*Opisthocomus hoazin*) and cow rumen fluid with seven tropical forages, 87 (2000) 287
Jones, R.J., Meyer, J.H.F., Bechaz, M. and Stoltz, M.A., An approach to screening potential pasture species for condensed tannin activity, 85 (2000) 269
Jones, R.J., see Palmer, B., 85 (2000) 259
Jones, R.J., see Palmer, B., 86 (2000) 149
Jones, R.J., see Palmer, B., 87 (2000) 29

Kailas, M.M., see Manjunatha, J.V., 87 (2000) 95
Kailas, M.M., see Sreerangaraju, G., 85 (2000) 131
Kallah, Mh.S., Bale, J.O., Abdullahi, U.S., Muhammad, I.R. and Lawal, R., Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137
Karhunen, J., see Laurinen, P., 83 (2000) 1
Karim, S.A., see Santra, A., 86 (2000) 251
Karn, J.F., Phosphorus nutrition of grazing cattle: a review, 89 (2001) 133
Kasim, A.B. and Edwards Jr., H.M., Effect of sources of maize and maize particle sizes on the utilization of phytate phosphorus in broiler chicks, 86 (2000) 15
Kavanagh, S., Lynch, P.B., O'Mara, F. and Caffrey, P.J., A comparison of total collection and marker technique for the measurement of apparent digestibility of diets for growing pigs, 89 (2001) 49
Kayouli, C., see Moujahed, N., 88 (2000) 219
Kellogg, D. Wayne, see Coblentz, W.K., 89 (2001) 17
Kennedy, P.M., Lowry, J.B. and Conlan, L.L., Phosphate rather than surfactant accounts for the main contribution to enhanced fibre digestibility resulting from treatment with boiling neutral detergent, 86 (2000) 177
Khali, A., see Mishra, A.S., 84 (2000) 257
Khalili, H. and Sairanen, A., Effect of concentrate type on rumen fermentation and milk production of cows at pasture, 84 (2000) 199
Khan, M.Y., see , Chandramoni, 83 (2000) 287
Khan, M.Y., see Tiwari, C.M., 89 (2001) 119
King, R.H., Dunshea, F.R., Morrish, L., Eason, P.J., van Barneveld, R.J., Mullan, B.P. and Campbell, R.G., The energy value of *Lupinus angustifolius* and *Lupinus albus* for growing pigs, 83 (2000) 17
Kitcherside, M.A., Glen, E.F. and Webster, A.J.F., FibreCap: an improved method for the rapid analysis of fibre in feeding stuffs, 86 (2000) 125
Kitessa, S.M., Gulati, S.K., Ashes, J.R., Fleck, E., Scott, T.W. and Nichols, P.D., Utilisation of fish oil in ruminants. I. Fish oil metabolism in sheep, 89 (2001) 189
Kitessa, S.M., Gualti, S.K., Ashes, J.R., Fleck, E., Scott, T.W. and Nichols, P.D., Utilisation of fish oil in ruminants. II. Transfer of fish oil fatty acids into goats' milk, 89 (2001) 201
Kitessa, S.M., see Gulati, S.K., 86 (2000) 139
Koegel, R.G., see Bal, M.A., 86 (2000) 83
Kokkonen, T., Tuori, M., Leivonen, V. and Syrjälä-Qvist, L., Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 1. Milk production and feed utilisation, 84 (2000) 213
Kokkonen, T., Tuori, M. and Syrjälä-Qvist, L., Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 2. Rumen fermentation and digesta passage rate, 84 (2000) 229
Koreleski, J., see Żyła, K., 89 (2001) 113
Kreuzer, M., see Machmüller, A., 85 (2000) 41
Kreuzer, M., see Wettstein, H.-R., 85 (2000) 153
Krishnamoorthy, U., see Bhatta, R., 83 (2000) 67
Krishnamoorthy, U., see Manjunatha, J.V., 87 (2000) 95
Krishnamoorthy, U., see Sreerangaraju, G., 85 (2000) 131
Krueger, C.G., see Hedqvist, H., 87 (2000) 41
Kung, L., Bracht, J.P. and Tavares, J.Y., Effects of various compounds on in vitro ruminal fermentation and production of sulfide, 84 (2000) 69

Lage, A.M., see Fonseca, A.J.M., 83 (2000) 173
Lahlou Kassi, A., see El hassan, S.M., 86 (2000) 27
Larondelle, Y., see Lejeune, A., 84 (2000) 295
Larson, B.T., see Swanson, K.C., 86 (2000) 95
Lauer, J.G., see Bal, M.A., 86 (2000) 83
Laurinen, P., Siljander-Rasi, H., Karhunen, J., Alaviuhkola, T., Näsi, M. and Tuppi, K., Effects of different grinding methods and particle size of barley and wheat on pig performance and digestibility, 83 (2000) 1
Lawal, R., see Kallah, M.h.S., 84 (2000) 137
Lázaro, R., see Medel, P., 84 (2000) 13
Le Boulengé, E., see Lejeune, A., 84 (2000) 295
Le Guen, M.-P., see Maaroufi, C., 85 (2000) 61
Lebzien, P., Forage evaluation in ruminant nutrition. D.I. Givens, E. Owen, R.F.E. Axford, H.M. Omed

(Eds.); CABI Publishing, Wallingford, UK, 2000, 496 pages, hardcover, ISBN 0-85199-344-3, £75.00 (US$140.00), 86 (2000) 267
Nutrient Elements in Grassland: Soil–Plant–Animal Relationships. D.C. Whitehead (Ed.); CABI International, Wallingford, UK, 2000, p. 384, hardback, ISBN 0-85199-437-7, £ 60.00 (US$ 110.00), 89 (2001) 209
Ledoux, D.R., see Żyła, K., 89 (2001) 113
Lee, S.S., Ha, J.K. and Cheng, K.-J., Influence of an anaerobic fungal culture administration on in vivo ruminal fermentation and nutrient digestion, 88 (2000) 201
Leivonen, V., see Kokkonen, T., 84 (2000) 213
Lejeune, A., Peng, J., Le Boulengé, E., Larondelle, Y. and Van Hove, C., Carotene content of *Azolla* and its variations during drying and storage treatments, 84 (2000) 295
Letso, M., see Madibela, O.R., 84 (2000) 97
Li, T.-J., see Huang, R.-L., 88 (2000) 79
Lindberg, J.E., see Nhu Phuc, B.H., 83 (2000) 223
Lister, S.J., Dhanoa, M.S., Stewart, J.L. and Gill, M., Classification and comparison of *Gliricidia* provenances using near infrared reflectance spectroscopy, 86 (2000) 221
Lister, S.J., see Wilman, D., 88 (2000) 139
Liu, J.X. and Ørskov, E.R., Cellulase treatment of untreated and steam pre-treated rice straw — effect on in vitro fermentation characteristics, 88 (2000) 189
Ljøkjel, K., Harstad, O.M. and Skrede, A., Effect of heat treatment of soybean meal and fish meal on amino acid digestibility in mink and dairy cows, 84 (2000) 83
Longland, A.C., see McLean, B.M.L., 85 (2000) 79
Longland, A.C., see Moore-Colyer, M.J.S., 84 (2000) 183
López-Saez, A., see Fernández, C., 86 (2000) 71
Lowry, J.B., see Kennedy, P.M., 86 (2000) 177
Lu, G.W. and Chen, T.C., Quality characteristics of broiler blood meal as affected by yeast, glucose oxidase, and antioxidant treatments, 83 (2000) 159
Lynch, P.B., see Kavanagh, S., 89 (2001) 49

Maaroufi, C., Melcion, J.-P., de Monredon, F., Giboulot, B., Guibert, D. and Le Guen, M.-P., Fractionation of pea flour with pilot scale sieving. I. Physical and chemical characteristics of pea seed fractions, 85 (2000) 61
Mabon, N., Mandiki, S.N.M., Derycke, G., Bister, J.-L., Wathelet, J.-P., Marlier, M. and Paquay, R., Chemical changes and influences of rapeseed antinutritional factors on lamb physiology and performance. 3. Antinutritional factors in plasma and organs, 85 (2000) 111
Machmüller, A., Ossowski, D.A. and Kreuzer, M., Comparative evaluation of the effects of coconut oil, oilseeds and crystalline fat on methane release, digestion and energy balance in lambs, 85 (2000) 41
Machmüller, A., see Wettstein, H.-R., 85 (2000) 153
Mack, S., see Esteve-Garcia, E., 87 (2000) 85
Madibela, O.R., Boitumelo, W.S. and Letso, M., Chemical composition and in vitro dry matter digestibility of four parasitic plants (*Tapinanthus lugardii*, *Erianthenum ngamicum*, *Viscum rotundifolium* and *Viscum verrucosum*) in Botswana, 84 (2000) 97
Mafeni, J.M., see Ngwa, A.T., 88 (2000) 253
Mandiki, S.N.M., see Mabon, N., 85 (2000) 111
Manjunatha, J.V., Krishnamoorthy, U., Kailas, M.M. and Singh, C.K., Effect of feeding undegraded intake protein at a level greater than National Research Council recommendation on the lactational performance of crossbred cows, 87 (2000) 95
Mannion, P.F., see Farrell, D.J., 85 (2000) 145
Marichal, M. de J., Carriquiry, M., Pereda, R. and San Martín, R., Protein degradability and intestinal digestibility of blood meals: comparison of two processing methods, 88 (2000) 91
Marlier, M., see Mabon, N., 85 (2000) 111
Martín-Orúe, S.M., Balcells, J., Guada, J.A. and Fondevila, M., Microbial nitrogen production in growing heifers: direct measurement of duodenal flow of purine bases versus urinary excretion of purine derivatives as estimation procedures, 88 (2000) 171
Martín-Orue, S.M., Balcells, J., Vicente, F. and Castrillo, C., Influence of dietary rumen-degradable protein supply on rumen characteristics and carbohydrate fermentation in beef cattle offered high-grain diets, 88 (2000) 59
Martrenchar, A., see Morisse, J.P., 84 (2000) 129
Masoero, F., see Piva, G., 89 (2001) 59
Mason, D., see Davies, Z.S., 83 (2000) 205
Mateos, G.G., see Medel, P., 84 (2000) 13
Matsui, T., see Park, W.-Y., 88 (2000) 31
Mauricio, R.M., Owen, E., Mould, F.L., Givens, I., Theodorou, M.K., France, J., Davies, D.R. and Dhanoa, M.S., Comparison of bovine rumen liquor and bovine faeces as inoculum for an in vitro gas production technique for evaluating forages, 89 (2001) 33

McAllister, T.A., see Nsereko, V.L., 88 (2000) 153
McDowell, L.R., see White, C.E., 87 (2000) 105
McKinnon, J.J., see Jones, R.A., 89 (2001) 97
McKinnon, J.J., see Mustafa, A.F., 83 (2000) 301
McLean, B.M.L., Hyslop, J.J., Longland, A.C., Cuddeford, D. and Hollands, T., Physical processing of barley and its effects on intra-caecal fermentation parameters in ponies, 85 (2000) 79
Medel, P., García, M., Lázaro, R., de Blas, C. and Mateos, G.G., Particle size and heat treatment of barley in diets for early-weaned piglets, 84 (2000) 13
Mehra, U.R., see Verma, A.K., 87 (2000) 253
Melcion, J.-P., see Maaroufi, C., 85 (2000) 61
Mendez, P., see Ventura, M.R., 85 (2000) 279
Mendoza, M.G.D., see Cabrera, E.J.I., 83 (2000) 49
Mendoza, M.G.D., see García, C.C.G., 83 (2000) 165
Merry, R.J., see Davies, Z.S., 83 (2000) 205
Merry, R.J., see Dewhurst, R.J., 85 (2000) 1
Meyer, J.H.F., see Jones, R.J., 85 (2000) 269
Mishra, A.S., Chaturvedi, O.H., Khali, A., Prasad, R., Santra, A., Misra, A.K., Parthasarathy, S. and Jakhmola, R.C., Effect of sodium hydroxide and alkaline hydrogen peroxide treatment on physical and chemical characteristics and IVOMD of mustard straw, 84 (2000) 257
Misra, A.K., see Mishra, A.S., 84 (2000) 257
Mohammed, F., see Bhatta, R., 83 (2000) 67
Moore-Colyer, M.J.S., Hyslop, J.J., Longland, A.C. and Cuddeford, D., Intra-caecal fermentation parameters in ponies fed botanically diverse fibre-based diets, 84 (2000) 183
Morgavi, D.P., see Nsereko, V.L., 88 (2000) 153
Morisse, J.P., Huonnic, D., Cotte, J.P. and Martrenchar, A., The effect of four fibrous feed supplementations on different welfare traits in veal calves, 84 (2000) 129
Morrish, L., see King, R.H., 83 (2000) 17
Moschini, M., see Piva, G., 89 (2001) 59
Moujahed, N., Kayouli, C., Thewis, A., Beckers, Y. and Rezgui, S., Effects of multinutrient blocks and polyethylene glycol 4000 supplies on intake and digestion by sheep fed *Acacia cyanophylla* Lindl. foliage-based diets, 88 (2000) 219
Mould, F.L., see Mauricio, R.M., 89 (2001) 33
Mourato, M., see Seabra, M., 89 (2001) 1
Mueller-Harvey, I., see Hedqvist, H., 87 (2000) 41
Muhammad, I.R., see Kallah, M.h.S., 84 (2000) 137
Mullan, B.P., see Hanbury, C.D., 87 (2000) 1
Mullan, B.P., see King, R.H., 83 (2000) 17
Muntifering, R.B., Crosby, D.D., Powell, M.C. and Chappelka, A.H., Yield and quality characteristics of bahiagrass (*Paspalum notatum*) exposed to ground-level ozone, 84 (2000) 243
Mupangwa, J.F., Acamovic, T., Topps, J.H., Ngongoni, N.T. and Hamudikuwanda, H., Content of soluble and bound condensed tannins of three tropical herbaceous forage legumes, 83 (2000) 139
Murphy, M., see Hedqvist, H., 87 (2000) 41
Mustafa, A.F., McKinnon, J.J. and Christensen, D.A., Chemical characterization and in situ nutrient degradability of wet distillers' grains derived from barley-based ethanol production, 83 (2000) 301
Mustafa, A.F., see Jones, R.A., 89 (2001) 97
Muzquiz, M., see Ventura, M.R., 85 (2000) 279

Nagadi, S., Herrero, M. and Jessop, N.S., The influence of diet of the donor animal on the initial bacterial concentration of ruminal fluid and in vitro gas production degradability parameters, 87 (2000) 231
The effect of fermentable nitrogen availability on in vitro gas production and degradability of NDF, 87 (2000) 241
Nandra, K.S., Dobos, R.C., Orchard, B.A., Neutze, S.A., Oddy, V.H., Cullis, B.R. and Jones, A.W., The effect of animal species on in sacco degradation of dry matter and protein of feeds in the rumen, 83 (2000) 273
Näsi, M., see Laurinen, P., 83 (2000) 1
Negi, A.S., see Ramana, D.B.V., 88 (2000) 103
Nelssen, J.L., see Grinstead, G.S., 83 (2000) 237
Neutze, S.A., see Nandra, K.S., 83 (2000) 273
Newbold, C.J., see El hassan, S.M., 86 (2000) 27
Ngongoni, N.T., see Mupangwa, J.F., 83 (2000) 139
Ngwa, A.T., Pone, D.K. and Mafeni, J.M., Feed selection and dietary preferences of forage by small ruminants grazing natural pastures in the Sahelian zone of Cameroon, 88 (2000) 253
Nhu Phuc, B.H., Ogle, B. and Lindberg, J.E., Effect of replacing soybean protein with cassava leaf protein in cassava root meal based diets for growing pigs on digestibility and N retention, 83 (2000) 223
Nianogo, A.J., see Savadogo, M., 84 (2000) 265
Nianogo, A.J., see Savadogo, M., 87 (2000) 57
Nichols, P.D., see Kitessa, S.M., 89 (2001) 189
Nichols, P.D., see Kitessa, S.M., 89 (2001) 201
Nogueira Filho, J.C.M., Fondevila, M., Barrios Urdaneta, A. and González Ronquillo, M., In vitro microbial fermentation of tropical grasses at an advanced maturity stage, 83 (2000) 145

Nsahlai, I.V., Osuji, P.O. and Umunna, N.N., Effect of form and of quality of feed on the concentrations of purine derivatives in urinary spot samples, daily microbial N supply and predictability of intake, 85 (2000) 223
Nsereko, V.L., Morgavi, D.P., Rode, L.M., Beauchemin, K.A. and McAllister, T.A., Effects of fungal enzyme preparations on hydrolysis and subsequent degradation of alfalfa hay fiber by mixed rumen microorganisms in vitro, 88 (2000) 153
Ntim, I., see Atuahene, C.C., 83 (2000) 185

Ochtabińska, A., see Pastuszewska, B., 86 (2000) 117
Oddy, V.H., see Nandra, K.S., 83 (2000) 273
Ogle, B., see Nhu Phuc, B.H., 83 (2000) 223
Olson, K.C., see ZoBell, D.R., 87 (2000) 279
O'Mara, F., see Kavanagh, S., 89 (2001) 49
Ondiek, J.K., see Abdulrazak, S.A., 85 (2000) 89
Orchard, B.A., see Nandra, K.S., 83 (2000) 273
Ortega, C.M.E., see García, C.C.G., 83 (2000) 165
Ortiz, L.T., see Treviño, J., 84 (2000) 155
Ossowski, D.A., see Machmüller, A., 85 (2000) 41
Osuji, P.O., see Nsahlai, I.V., 85 (2000) 223
Ouhida, I., Pérez, J.F., Piedrafita, J. and Gasa, J., The effects of sepiolite in broiler chicken diets of high, medium and low viscosity. Productive performance and nutritive value, 85 (2000) 183
Owen, E., see Mauricio, R.M., 89 (2001) 33

Pack, M. and Höhler, D., Comments on "Effects of DL-methionine hydroxyanalogue (MHA) or DL-methionine (DL-Met) on N-retention in broiler chickens and pigs [A. Römer, H. Abel, Anim. Feed Sci. Technol. 81 (1999) 193–203]", 88 (2000) 129
Palmer, B. and Jones, R.J., The effect of PEG addition in vitro on dry matter and nitrogen digestibility of *Calliandra calothyrsus* and *Leucaena leucocephala* leaf, 85 (2000) 259
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG): the effect of sample pretreatment on dry matter and nitrogen digestibility as well as PEG binding of *Calliandra calothyrsus*, 86 (2000) 149
Palmer, B., Jones, R.J., Wina, E. and Tangendjaja, B., The effect of sample drying conditions on estimates of condensed tannin and fibre content, dry matter digestibility, nitrogen digestibility and PEG binding of *Calliandra calothyrsus*, 87 (2000) 29
Palmer, B., see Jones, R.J., 85 (2000) 215
Pan, Y.-F., see Huang, R.-L., 88 (2000) 79
Papon, Y., see Broudiscou, L.-P., 87 (2000) 263
Paquay, R., see Mabon, N., 85 (2000) 111
Park, J., see Anil, L., 86 (2000) 157
Park, W.-Y., Matsui, T., Yano, F. and Yano, H., Heat treatment of rapeseed meal increases phytate flow into the duodenum of sheep, 88 (2000) 31
Parthasarathy, S., see Mishra, A.S., 84 (2000) 257
Pascual, J.J., Cervera, C. and Fernández-Carmona, J., The effect of dietary fat on the performance and body composition of rabbits in their second lactation, 86 (2000) 191
Pascual, J.J., see Blas, E., 88 (2000) 239
Pastuszewska, B., Jabłecki, G., Święch, E., Buraczewska, L. and Ochtabińska, A., Nutritional value of rapeseed meal containing lecithin gums precipitated with citric acid, 86 (2000) 117
Pathak, N.N., see Giri, S.S., 83 (2000) 195
Paton, S.J., see Swanson, K.C., 86 (2000) 95
Peng, J., see Lejeune, A., 84 (2000) 295
Pereda, R., see Marichal, M. de J., 88 (2000) 91
Pérez, J.F., see Ouhida, I., 85 (2000) 183
Perez-Maldonado, R.A., see Farrell, D.J., 85 (2000) 145
Peyraud, J.L., see Delagarde, R., 84 (2000) 49
Phipps, R.H., see Anil, L., 86 (2000) 157
Piedrafita, J., see Ouhida, I., 85 (2000) 183
Piironen, J., see Żyła, K., 89 (2001) 113
Pisulewska, E. and Pisulewski, P.M., Trypsin inhibitor activity of legume seeds (peas, chickling vetch, lentils, and soya beans) as affected by the technique of harvest, 86 (2000) 261
Pisulewski, P.M., see Pisulewska, E., 86 (2000) 261
Piva, G., Moschini, M., Fiorentini, L. and Masoero, F., Effect of temperature, pressure and alkaline treatments on meat meal quality, 89 (2001) 59
Poncet, C., see Archimède, H., 87 (2000) 153
Poncet, C., see Drogoul, C., 87 (2000) 117, 131
Pone, D.K., see Ngwa, A.T., 88 (2000) 253
Powell, M.C., see Muntifering, R.B., 84 (2000) 243
Prasad, R., see Mishra, A.S., 84 (2000) 257
Prestløkken, E., see Harstad, O.M., 83 (2000) 31

Ramana, D.B.V., Singh, S., Solanki, K.R. and Negi, A.S., Nutritive evaluation of some nitrogen and non-nitrogen fixing multipurpose tree species, 88 (2000) 103
Ramirez, L.R., see García, C.C.G., 83 (2000) 165
Ramos, J.J.A., see Cabrera, E.J.I., 83 (2000) 49
Rasool, S., see Ahmad, T., 83 (2000) 103

Ravi, U., Singh, P., Garg, A.K. and Agrawal, D.K., Performance of lambs fed expeller pressed and solvent extracted karanj (*Pongamia pinnata*) oil cake, 88 (2000) 121
Rebolé, A., see Treviño, J., 84 (2000) 155
Reed, C., Trigo-Stockli, D., Blasi, D.A. and Fairchild, F.J., Storage of pelleted wheat middlings in farm bins, 88 (2000) 47
Reed, J.D., see Hedqvist, H., 87 (2000) 41
Repetto, J.L., see Cajarville, C., 87 (2000) 203
Rezgui, S., see Moujahed, N., 88 (2000) 219
Richards, C.J., see Swanson, K.C., 86 (2000) 95
Robertson, J.B., see Ruiz, R., 89 (2001) 155
Rode, L.M., see Nsereko, V.L., 88 (2000) 153
Rodríguez, C.A., see Cajarville, C., 87 (2000) 203
Rodríguez, M.L., see Treviño, J., 84 (2000) 155
Römer, A. and Abel, H.j., Corrigendum to "Effects of DL-methionine hydroxyanalogue (MHA) or DL-methionine (DL-Met) on N-retention in broiler chickens and pigs" [Ani. Feed. Sci. Tech. 81 (1999) 193–203], 83 (2000) 325
Rosenkrans Jr., C.F., see Coblentz, W.K., 89 (2001) 17
Ørskov, E.R., see Abdulrazak, S.A., 85 (2000) 89
Ørskov, E.R., see Liu, J.X., 88 (2000) 189
Ruiz, R., Van Soest, P.J., Van Amburgh, M.E., Fox, D.G. and Robertson, J.B., Use of chromium mordanted neutral detergent residue as a predictor of fecal output to estimate intake in grazing high producing Holstein cows, 89 (2001) 155

Sahoo, A., see Giri, S.S., 83 (2000) 195
Sairanen, A., see Khalili, H., 84 (2000) 199
Saki, A.A., see Iji, P.A., 89 (2001) 175
San Martín, R., see Marichal, M. de J., 88 (2000) 91
Santra, A. and Karim, S.A., Growth performance of faunated and defaunated Malpura weaner lambs, 86 (2000) 251
Santra, A., see Mishra, A.S., 84 (2000) 257
Sarwar, M., see Ahmad, T., 83 (2000) 103
Sastry, V.R.B., see Elangovan, A.V., 88 (2000) 113
Savadogo, M., Zemmelink, G. and Nianogo, A.J., Effect of selective consumption on voluntary intake and digestibility of sorghum (*Sorghum bicolor* L. Moench) stover, cowpea (*Vigna unguiculata* L. Walp.) and groundnut (*Arachis hypogaea* L.) haulms by sheep, 84 (2000) 265
Savadogo, M., Zemmelink, G., Nianogo, A.J. and Van Keulen, H., Cowpea (*Vigna unguiculata* L. Walp) and groundnut (*Arachys hypogea* L.) haulms as supplements to sorghum (*Sorghum bicolor* L. Moench) stover: intake, digestibility and optimum feeding levels, 87 (2000) 57
Scarbrough, D.A., see Coblentz, W.K., 89 (2001) 17
Scott, T.W., see Gulati, S.K., 86 (2000) 139
Scott, T.W., see Kitessa, S.M., 89 (2001) 189, 201
Seabra, M., Carvalho, S., Freire, J., Ferreira, R., Mourato, M., Cunha, L., Cabral, F., Teixeira, A. and Aumaitre, A., *Lupinus luteus*, *Vicia sativa* and *Lathyrus cicera* as protein sources for piglets: ileal and total tract apparent digestibility of amino acids and antigenic effects, 89 (2001) 1
Seynaeve, M., see Van Nevel, C., 83 (2000) 89
Shannak, S., Südekum, K.-H. and Susenbeth, A., Estimating ruminal crude protein degradation with in situ and chemical fractionation procedures, 85 (2000) 195
Corrigendum to "Estimating ruminal crude protein degradation with in situ and chemical fractionation procedures". [Anim. Feed Sci. Technol. 85 (2000) 195–214], 86 (2000) 269
Shaver, R.D., see Bal, M.A., 86 (2000) 83
Shenkoru, T., see Dana, N., 86 (2000) 239
Shinners, K.J., see Bal, M.A., 86 (2000) 83
Siddique, K.H.M., see Hanbury, C.D., 87 (2000) 1
Siljander-Rasi, H., see Laurinen, P., 83 (2000) 1
Simon, O., see Dänicke, S., 84 (2000) 279
Singh, C.K., see Manjunatha, J.V., 87 (2000) 95
Singh, P., see Ravi, U., 88 (2000) 121
Singh, S., see Ramana, D.B.V., 88 (2000) 103
Singh, S.D., see Elangovan, A.V., 88 (2000) 113
Siroka, P., see Váradyová, Z., 83 (2000) 127
Skrede, A., see Ljøkjel, K., 84 (2000) 83
Solanki, K.R., see Ramana, D.B.V., 88 (2000) 103
Sreerangaraju, G., Krishnamoorthy, U. and Kailas, M.M., Evaluation of Bengal gram (*Cicer arietinum*) husk as a source of tannin and its interference in rumen and post-rumen nutrient digestion in sheep, 85 (2000) 131
Stahringer, R.C., see Arakaki, L.C., 84 (2000) 121
Stern, M.D., see Bach, A., 84 (2000) 23
Stewart, J.L., see Lister, S.J., 86 (2000) 221
Stoltz, M.A., see Jones, R.J., 85 (2000) 269
Straub, R.J., see Bal, M.A., 86 (2000) 83
Strickling, J.A., Harmon, D.L., Dawson, K.A. and Gross, K.L., Evaluation of oligosaccharide addition to dog diets: influences on nutrient digestion and microbial populations, 86 (2000) 205
Südekum, K.-H., see Shannak, S., 85 (2000) 195
Südekum, K.-H., see Shannak, S., 86 (2000) 269
Sundstøl, F., see Tolera, A., 85 (2000) 239
Sundstøl, F., see Tolera, A., 87 (2000) 215

Susenbeth, A., see Shannak, S., 85 (2000) 195
Susenbeth, A., see Shannak, S., 86 (2000) 269
Svihus, B., Edvardsen, D.H., Bedford, M.R. and Gullord, M., Effect of methods of analysis and heat treatment on viscosity of wheat, barley and oats, 88 (2000) 1
Swanson, K.C., Harmon, D.L., Jacques, K.A., Larson, B.T., Richards, C.J., Bohnert, D.W. and Paton, S.J., Efficacy of chromium-yeast supplementation for growing beef steers, 86 (2000) 95
Świątkiewicz, S., see Żyła, K., 89 (2001) 113
Święch, E., see Pastuszewska, B., 86 (2000) 117
Syrjälä-Qvist, L., see Kokkonen, T., 84 (2000) 213, 229

Tamminga, S., see van Laar, H., 88 (2000) 13
Tamminga, S., see Yu, P., 86 (2000) 165
Tan, Z.-L., see Huang, R.-L., 88 (2000) 79
Tang, Q., see Guo, Y., 89 (2001) 165
Tangendjaja, B., see Palmer, B., 87 (2000) 29
Tavares, J.Y., see Kung, L., 84 (2000) 69
Tegegne, A., see Dana, N., 86 (2000) 239
Teixeira, A., see Seabra, M., 89 (2001) 1
Theodorou, M.K., see Davies, Z.S., 83 (2000) 205
Theodorou, M.K., see Mauricio, R.M., 89 (2001) 33
Thewis, A., see Moujahed, N., 88 (2000) 219
Tisserand, J.L., see Drogoul, C., 87 (2000) 117
Tisserand, J.L., see Drogoul, C., 87 (2000) 131
Tivey, D.R., see Iji, P.A., 89 (2001) 175
Tiwari, C.M., Chandramoni, A.S., Jadhao, S.B., Gowda, S.K. and Khan, M.Y., Studies on blood biochemical constituents and rumen fermentation in growing buffalo calves fed ammoniated straw-based rations supplemented with different protein sources, 89 (2001) 119
Tiwari, C.M., see , Chandramoni, 83 (2000) 287
Tokach, M.D., see Grinstead, G.S., 83 (2000) 237
Tolera, A. and Sundstøl, F., Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 1. Feed intake, digestibility and body weight change, 85 (2000) 239
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 2. Rumen fermentation and nitrogen metabolism, 87 (2000) 215
Topps, J.H., see Mupangwa, J.F., 83 (2000) 139
Treacher, R., see ZoBell, D.R., 87 (2000) 279
Treviño, J., Rodríguez, M.L., Ortiz, L.T., Rebolé, A. and Alzueta, C., Protein quality of linseed for growing broiler chicks, 84 (2000) 155
Trigo-Stockli, D., see Reed, C., 88 (2000) 47
Tuori, M., see Kokkonen, T., 84 (2000) 213
Tuori, M., see Kokkonen, T., 84 (2000) 229
Tuppi, K., see Laurinen, P., 83 (2000) 1
Turner, J.E., see Coblentz, W.K., 89 (2001) 17

Umunna, N.N., see Nsahlai, I.V., 85 (2000) 223

Vadiveloo, J., Nutritional properties of the leaf and stem of rice straw, 83 (2000) 57
Van Amburgh, M.E., see Ruiz, R., 89 (2001) 155
van Barneveld, R.J., see King, R.H., 83 (2000) 17
Van De Voorde, G., see Van Nevel, C., 83 (2000) 89
Van Driessche, E., see Van Nevel, C., 83 (2000) 89
Van Hove, C., see Lejeune, A., 84 (2000) 295
Van Keulen, H., see Savadogo, M., 87 (2000) 57
van Laar, H., Tamminga, S., Williams, B.A. and Verstegen, M.W.A., Fermentation of the endosperm cell walls of monocotyledon and dicotyledon plant species by faecal microbes from pigs. The relationship between cell wall characteristics and fermentability, 88 (2000) 13
Van Nevel, C., Seynaeve, M., Van De Voorde, G., De Smet, S., Van Driessche, E. and De Wilde, R., Effects of increasing amounts of *Lupinus albus* seeds without or with whole egg powder in the diet of growing pigs on performance, 83 (2000) 89
Van Soest, P.J., see Ruiz, R., 89 (2001) 155
Váradyová, Z., Zeleňák, I. and Siroka, P., In vitro study of the rumen and hindgut fermentation of fibrous materials (meadow hay, beech sawdust, wheat straw) in sheep, 83 (2000) 127
Ventura, M.R., Castanon, J.I.R., Muzquiz, M., Mendez, P. and Flores, M.P., Influence of alkaloid content on intake of subspecies of *Chamaecytisus proliferus*, 85 (2000) 279
Verma, A.K., Dass, R.S. and Mehra, U.R., Revival performance of growing buffalo calves fed on urea molasses liquid diet and roughage as survival feed, 87 (2000) 253
Verma, S.V.S., see Elangovan, A.V., 88 (2000) 113
Verstegen, M.W.A., see van Laar, H., 88 (2000) 13
Vicente, F., see Martín-Orue, S.M., 88 (2000) 59
Vissia, G.H.P. and Beynen, A.C., Inhibitory effect of dietary carboxymethylcellulose on fat digestibility in rats fed diets containing either starch or glucose, 85 (2000) 139

Wallace, R.J., see El hassan, S.M., 86 (2000) 27
Wathelet, J.-P., see Mabon, N., 85 (2000) 111

Webster, A.J.F., see Kitcherside, M.A., 86 (2000) 125
Weinberg, Z.G., see Filya, I., 88 (2000) 39
Wenk, C., The Ostrich: Biology, Production and Health. D.C. Deeming (Ed.); CABI Publishing, Wallingford Oxon (UK) and New York (USA), 1999, 360 pp., £ 55.00, US$ 10 000, hardcover, ISBN 085 199 350 8, 88 (2000) 135
Wettstein, H.-R., Machmüller, A. and Kreuzer, M., Effects of raw and modified canola lecithins compared to canola oil, canola seed and soy lecithin on ruminal fermentation measured with rumen simulation technique, 85 (2000) 153
Weyers, J.S., see Coblentz, W.K., 89 (2001) 17
White, C.E., Campbell, D.R. and McDowell, L.R., Effects of dry matter content on trypsin inhibitors and urease activity in heat treated soya beans fed to weaned piglets, 87 (2000) 105
White, C.L., see Hanbury, C.D., 87 (2000) 1
Wiedmeier, R.D., see ZoBell, D.R., 87 (2000) 279
Wilkins, R.J. and Jones, R., Alternative home-grown protein sources for ruminants in the United Kingdom, 85 (2000) 23
Williams, B.A., see van Laar, H., 88 (2000) 13
Wilman, D. and Adesogan, A., A comparison of filter bag methods with conventional tube methods of determining the in vitro digestibility of forages, 84 (2000) 33
Wilman, D., Field, M., Lister, S.J. and Givens, D.I., The use of near infrared spectroscopy to investigate the composition of silages and the rate and extent of cell-wall degradation, 88 (2000) 139
Wina, E., see Palmer, B., 87 (2000) 29
Wiseman, J., Correlation between physical measurements and dietary energy values of wheat for poultry and pigs, 84 (2000) 1
Wiseman, J., see Garnsworthy, P.C., 85 (2000) 33
Wubben, J.E., see Albin, D.M., 87 (2000) 173

Xandé, A., see Archimède, H., 87 (2000) 153
Xiao, G.Q., see Hill, J., 89 (2001) 83
Xing, T.-X., see Huang, R.-L., 88 (2000) 79

Yano, F., see Park, W.-Y., 88 (2000) 31
Yano, H., see Park, W.-Y., 88 (2000) 31
Yosef, E. and Ben-Ghedalia, D., Changes in the alkaline-labile phenolic compounds of wheat straw cell walls as affected by SO_2 treatment and passage through the gastro-intestine of sheep, 83 (2000) 115
Yu, B., Huang, W.-J. and Chiou, P.W.-S., Bioavailability of iron from amino acid complex in weanling pigs, 86 (2000) 39
Yu, P., Goelema, J.O. and Tamminga, S., Using the DVE/OEB model to determine optimal conditions of pressure toasting on horse beans (*Vicia faba*) for the dairy feed industry, 86 (2000) 165
Yuan, J., see Guo, Y., 89 (2001) 165

Zeleňák, I., see Váradyová, Z., 83 (2000) 127
Zemmelink, G., see Savadogo, M., 84 (2000) 265
Zemmelink, G., see Savadogo, M., 87 (2000) 57
ZoBell, D.R., Wiedmeier, R.D., Olson, K.C. and Treacher, R., The effect of an exogenous enzyme treatment on production and carcass characteristics of growing and finishing steers, 87 (2000) 279
Żyła, K., Koreleski, J., Świątkiewicz, S., Ledoux, D.R. and Piironen, J., Influence of supplemental enzymes on the performance and phosphorus excretion of broilers fed wheat-based diets to 6 weeks of age, 89 (2001) 113

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89 (2001) 227–257

ANIMAL FEED SCIENCE AND TECHNOLOGY

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Subject Index

Animal Feed Science and Technology, volumes 83–89

A. rugosus
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Abomasum
Utilisation of fish oil in ruminants. I. Fish oil metabolism in sheep, 89 (2001) 189

Acacia
Nutritive evaluation of some Acacia tree leaves from Kenya, 85 (2000) 89

***Acacia cyanophylla* Lindl.**
Effects of multinutrient blocks and polyethylene glycol 4000 supplies on intake and digestion by sheep fed *Acacia cyanophylla* Lindl. foliage-based diets, 88 (2000) 219

Acid concentration
The influence of hydrochloric acid concentration and measurement method on the determination of amino acid levels in soya bean products, 87 (2000) 173

Acid phosphatase
Influence of supplemental enzymes on the performance and phosphorus excretion of broilers fed wheat-based diets to 6 weeks of age, 89 (2001) 113

Acid-insoluble ash
A comparison of total collection and marker technique for the measurement of apparent digestibility of diets for growing pigs, 89 (2001) 49

Actinomyces
Effect of inoculation of herbage prior to ensiling with *Streptomyces achromogenes* ISP 5028 on chemical composition of silage, 89 (2001) 83

Aerobic stability
The effect of bacterial inoculants on the fermentation and aerobic stability of whole crop wheat silage, 88 (2000) 39

Air pollution
Yield and quality characteristics of bahiagrass (*Paspalum notatum*) exposed to ground-level ozone, 84 (2000) 243

Alfalfa
Associative effects of supplementing barley straw diets with alfalfa hay on rumen environment and nutrient intake and digestibility for ewes, 87 (2000) 163
Effects of fungal enzyme preparations on hydrolysis and subsequent degradation of alfalfa hay fiber by mixed rumen microorganisms in vitro, 88 (2000) 153

Algae
Effects of *Spirulina platensis* on growth performance of weanling pigs, 83 (2000) 237

Alkaline treatment
Effect of temperature, pressure and alkaline treatments on meat meal quality, 89 (2001) 59

Alkaloids
Influence of alkaloid content on intake of subspecies of *Chamaecytisus proliferus*, 85 (2000) 279

Allantoin excretion
Effects of energy and protein supplementation on microbial-N synthesis and allantoin excretion in sheep fed guinea grass, 84 (2000) 167

Alysicarpus glumaceous
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

PII: S0377-8401(01)00213-9

AME
A note on a comparison of the feeding value of sweet potato vines and lucerne meal for broiler chickens, 85 (2000) 145

Amino acid profile
Effective rumen degradability and intestinal indigestibility of individual amino acids in solvent-extracted soybean meal (SBM) and xylose-treated SBM (SoyPass®) determined in situ, 83 (2000) 31

Amino acid retention
Protein quality of linseed for growing broiler chicks, 84 (2000) 155

Amino acids
Effect of heat treatment of soybean meal and fish meal on amino acid digestibility in mink and dairy cows, 84 (2000) 83
The influence of hydrochloric acid concentration and measurement method on the determination of amino acid levels in soya bean products, 87 (2000) 173
An in vitro method for the estimation of ileal crude protein and amino acids digestibility using the dialysis tubing for pig feedstuffs, 88 (2000) 79

Ammoniated straw
Studies on blood biochemical constituents and rumen fermentation in growing buffalo calves fed ammoniated straw-based rations supplemented with different protein sources, 89 (2001) 119

Amylase
Exogenous enzymes in monogastric nutrition — their current value and future benefits, 86 (2000) 1

Anaerobic fungal cultures
Influence of an anaerobic fungal culture administration on in vivo ruminal fermentation and nutrient digestion, 88 (2000) 201

Analysis
FibreCap: an improved method for the rapid analysis of fibre in feeding stuffs, 86 (2000) 125

Antigenic proteins
Lupinus luteus, *Vicia sativa* and *Lathyrus cicera* as protein sources for piglets: ileal and total tract apparent digestibility of amino acids and antigenic effects, 89 (2001) 1

Antimicrobials
Effects of various compounds on in vitro ruminal fermentation and production of sulfide, 84 (2000) 69

Antinutritional compounds
Effects of increasing amounts of *Lupinus albus* seeds without or with whole egg powder in the diet of growing pigs on performance, 83 (2000) 89

Antinutritional factors
A review of the potential of *Lathyrus sativus* L. and *L. cicera* L. grain for use as animal feed, 87 (2000) 1

Aspergillus niger
Effect of microbial phytase produced from a fungus *Aspergillus niger* on bioavailability of phosphorus and calcium in broiler chickens, 83 (2000) 103

Associative effects
Associative effects of supplementing barley straw diets with alfalfa hay on rumen environment and nutrient intake and digestibility for ewes, 87 (2000) 163

Azolla
Carotene content of *Azolla* and its variations during drying and storage treatments, 84 (2000) 295

Bacteria
Evaluation of oligosaccharide addition to dog diets: influences on nutrient digestion and microbial populations, 86 (2000) 205

Bacterial adhesion
In vitro microbial fermentation of tropical grasses at an advanced maturity stage, 83 (2000) 145

Bacterial inoculants
The effect of bacterial inoculants on the fermentation and aerobic stability of whole crop wheat silage, 88 (2000) 39

Bahiagrass
Yield and quality characteristics of bahiagrass (*Paspalum notatum*) exposed to ground-level ozone, 84 (2000) 243

Barley
Effects of different grinding methods and particle size of barley and wheat on pig performance and digestibility, 83 (2000) 1
Chemical characterization and in situ nutrient degradability of wet distillers' grains derived

from barley-based ethanol production, 83 (2000) 301
Particle size and heat treatment of barley in diets for early-weaned piglets, 84 (2000) 13
Effect of concentrate type on rumen fermentation and milk production of cows at pasture, 84 (2000) 199
Physical processing of barley and its effects on intra-caecal fermentation parameters in ponies, 85 (2000) 79
Effect of methods of analysis and heat treatment on viscosity of wheat, barley and oats, 88 (2000) 1
Influence of dietary rumen-degradable protein supply on rumen characteristics and carbohydrate fermentation in beef cattle offered high-grain diets, 88 (2000) 59

Beef cattle
Efficacy of chromium-yeast supplementation for growing beef steers, 86 (2000) 95

Beef cows
Phosphorus nutrition of grazing cattle: a review, 89 (2001) 133

Beet pulp
Composition and digestibility of beet pulp with and without molasses and dried using three methods, 85 (2000) 121

Behaviour
The effect of four fibrous feed supplementations on different welfare traits in veal calves, 84 (2000) 129

Bengal gram husk
Evaluation of Bengal gram (*Cicer arietinum*) husk as a source of tannin and its interference in rumen and post-rumen nutrient digestion in sheep, 85 (2000) 131

Betaine
Effect of source of betaine on growth performance and carcass traits in lambs, 86 (2000) 71
The effect of DL-methionine and betaine on growth performance and carcass characteristics in broilers, 87 (2000) 85

Betaine bypass
Effect of source of betaine on growth performance and carcass traits in lambs, 86 (2000) 71

Bioavailability
Effect of microbial phytase produced from a fungus *Aspergillus niger* on bioavailability of phosphorus and calcium in broiler chickens, 83 (2000) 103
Measuring resistance to ruminal degradation and bioavailability of ruminally protected methionine, 84 (2000) 23
Bioavailability of iron from amino acid complex in weanling pigs, 86 (2000) 39

Birdsfoot trefoil
Characterisation of tannins and in vitro protein digestibility of several *Lotus corniculatus* varieties, 87 (2000) 41

Blood biochemistry
Studies on blood biochemical constituents and rumen fermentation in growing buffalo calves fed ammoniated straw-based rations supplemented with different protein sources, 89 (2001) 119

Blood meal
Quality characteristics of broiler blood meal as affected by yeast, glucose oxidase, and antioxidant treatments, 83 (2000) 159
Protein degradability and intestinal digestibility of blood meals: comparison of two processing methods, 88 (2000) 91

Body composition
The effect of dietary fat on the performance and body composition of rabbits in their second lactation, 86 (2000) 191

Body growth
Intestinal development and body growth of broiler chicks on diets supplemented with non-starch polysaccharides, 89 (2001) 175

Body weight gain
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 1. Feed intake, digestibility and body weight change, 85 (2000) 239

Bound tannins
Content of soluble and bound condensed tannins of three tropical herbaceous forage legumes, 83 (2000) 139

Broiler
Effect of microbial phytase produced from a fungus *Aspergillus niger* on bioavailability of phosphorus and calcium in broiler chickens, 83 (2000) 103
Quality characteristics of broiler blood meal as affected by yeast, glucose oxidase, and antioxidant treatments, 83 (2000) 159
Interactions between dietary fat type and enzyme supplementation in broiler diets with high

pentosan contents: effects on precaecal and total tract digestibility of fatty acids, metabolizability of gross energy, digesta viscosity and weights of small intestine, 84 (2000) 279
The effects of sepiolite in broiler chicken diets of high, medium and low viscosity. Productive performance and nutritive value, 85 (2000) 183
Influence of supplemental enzymes on the performance and phosphorus excretion of broilers fed wheat-based diets to 6 weeks of age, 89 (2001) 113

Broiler chick
Protein quality of linseed for growing broiler chicks, 84 (2000) 155
Effects of supplementation with vitamin E on the performance and the tissue peroxidation of broiler chicks and the stability of thigh meat against oxidative deterioration, 89 (2001) 165

Broiler chickens
The effect of DL-methionine and betaine on growth performance and carcass characteristics in broilers, 87 (2000) 85
Intestinal development and body growth of broiler chicks on diets supplemented with non-starch polysaccharides, 89 (2001) 175

Buffalo
Revival performance of growing buffalo calves fed on urea molasses liquid diet and roughage as survival feed, 87 (2000) 253

Bushel weight
Correlation between physical measurements and dietary energy values of wheat for poultry and pigs, 84 (2000) 1

By-product feedstuffs
Chemical composition and nutritive value of some tropical by-product feedstuffs for small ruminants — in vivo and in vitro digestibility, 85 (2000) 99

C. goreensis
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Ca: P ratio
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Calcium
Effect of microbial phytase produced from a fungus *Aspergillus niger* on bioavailability of phosphorus and calcium in broiler chickens, 83 (2000) 103

Calcium oxide
Rumen degradation in sacco in sheep of wheat straw treated with calcium oxide, sodium hydroxide and sodium hydroxide plus hydrogen peroxide, 83 (2000) 313

Calliandra calothyrsus
The effect of sample drying conditions on estimates of condensed tannin and fibre content, dry matter digestibility, nitrogen digestibility and PEG binding of *Calliandra calothyrsus*, 87 (2000) 29

Canine
Evaluation of oligosaccharide addition to dog diets: influences on nutrient digestion and microbial populations, 86 (2000) 205

Canola
Effects of raw and modified canola lecithins compared to canola oil, canola seed and soy lecithin on ruminal fermentation measured with rumen simulation technique, 85 (2000) 153

Canola presscake
Effects of untreated and heat-treated canola presscake on milk yield and composition of dairy cows, 89 (2001) 97

Carbohydrase
Exogenous enzymes in monogastric nutrition — their current value and future benefits, 86 (2000) 1

Carbohydrate fractions
Comparison of major carbohydrate fractions and cell wall digestibility in silages made from older and newer maize genotypes grown in the UK, 89 (2001) 69

Carboxymethylcellulose
Inhibitory effect of dietary carboxymethylcellulose on fat digestibility in rats fed diets containing either starch or glucose, 85 (2000) 139

Carcass traits
Effect of source of betaine on growth performance and carcass traits in lambs, 86 (2000) 71

Carcass yield
The effect of DL-methionine and betaine on growth performance and carcass characteristics in broilers, 87 (2000) 85

Carotene
Carotene content of *Azolla* and its variations during drying and storage treatments, 84 (2000) 295

Cassava leaf meal
Effect of replacing soybean protein with cassava leaf protein in cassava root meal based diets for growing pigs on digestibility and N retention, 83 (2000) 223

Cassia mimosoides* and *Ipomea eriocarpa
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Cell wall digestibility
Comparison of major carbohydrate fractions and cell wall digestibility in silages made from older and newer maize genotypes grown in the UK, 89 (2001) 69

Cell walls
Fermentation of the endosperm cell walls of monocotyledon and dicotyledon plant species by faecal microbes from pigs. The relationship between cell wall characteristics and fermentability, 88 (2000) 13

Cell-wall degradation
The use of near infrared spectroscopy to investigate the composition of silages and the rate and extent of cell-wall degradation, 88 (2000) 139

Cereal grain forages
Ruminal nitrogen disappearance from sod-seeded cereal grain forages in Northern Arkansas, 89 (2001) 17

Chamaecytisus proliferus
Influence of alkaloid content on intake of subspecies of *Chamaecytisus proliferus*, 85 (2000) 279

Chemical characteristics
Effect of sodium hydroxide and alkaline hydrogen peroxide treatment on physical and chemical characteristics and IVOMD of mustard straw, 84 (2000) 257

Chemical composition
Chemical composition, DM and NDF degradation kinetics in rumen of seven legume straws, 83 (2000) 75
Evaluation of the chemical composition and the particle size of maize silages produced in north-west of Portugal, 83 (2000) 173
Vertical distribution of biomass, chemical composition and pepsin—cellulase digestibility in a perennial ryegrass sward: interaction with month of year, regrowth age and time of day, 84 (2000) 49
Chemical composition and in vitro dry matter digestibility of four parasitic plants (*Tapinanthus lugardii*, *Erianthenum ngamicum*, *Viscum rotundifolium* and *Viscum verrucosum*) in Botswana, 84 (2000) 97
A note on a comparison of the feeding value of sweet potato vines and lucerne meal for broiler chickens, 85 (2000) 145
Effect of inoculation of herbage prior to ensiling with *Streptomyces achromogenes* ISP 5028 on chemical composition of silage, 89 (2001) 83

Chick
Effect of sources of maize and maize particle sizes on the utilization of phytate phosphorus in broiler chicks, 86 (2000) 15

Chickens, Broilers
Blend of oil palm slurry and rice bran as feed ingredient for broiler chickens, 83 (2000) 185

Chickpea haulm
Feed intake, sperm output and seminal characteristics of Ethiopian highland sheep supplemented with different levels of leucaena (*Leucaena leucocephala*) leaf hay, 86 (2000) 239

Chromic oxide
A comparison of total collection and marker technique for the measurement of apparent digestibility of diets for growing pigs, 89 (2001) 49

Chromium
Efficacy of chromium-yeast supplementation for growing beef steers, 86 (2000) 95

Classification
Classification and comparison of *Gliricidia* provenances using near infrared reflectance spectroscopy, 86 (2000) 221

Climate change
Yield and quality characteristics of bahiagrass (*Paspalum notatum*) exposed to ground-level ozone, 84 (2000) 243

Composition
Nutritional value of rapeseed meal containing lecithin gums precipitated with citric acid, 86 (2000) 117

Compound feeds
Estimating ruminal crude protein degradation with in situ and chemical fractionation procedures, 85 (2000) 195

Concentrate
Effect of concentrate type on rumen fermentation and milk production of cows at pasture, 84 (2000) 199

Condensed tannins
Content of soluble and bound condensed tannins of three tropical herbaceous forage legumes, 83 (2000) 139
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG) 4000: comparison of six tanniniferous shrub legumes and the grass *Panicum maximum*, 85 (2000) 215
An approach to screening potential pasture species for condensed tannin activity, 85 (2000) 269
The effect of sample drying conditions on estimates of condensed tannin and fibre content, dry matter digestibility, nitrogen digestibility and PEG binding of *Calliandra calothyrsus*, 87 (2000) 29
Comparison of the digestive ability of crop fluid from the folivorous Hoatzin (*Opisthocomus hoazin*) and cow rumen fluid with seven tropical forages, 87 (2000) 287
Nutritive evaluation of some nitrogen and non-nitrogen fixing multipurpose tree species, 88 (2000) 103

Conjugated linoleic acid
Protection of conjugated linoleic acids from ruminal hydrogenation and their incorporation into milk fat, 86 (2000) 139

Corn
Influence of dietary, rumen-degradable protein supply on rumen characteristics and carbohydrate fermentation in beef cattle offered high-grain diets, 88 (2000) 59

Corn silage
Stage of maturity, processing, and hybrid effects on ruminal in situ disappearance of whole-plant corn silage, 86 (2000) 83

Cowpea haulms
Effect of selective consumption on voluntary intake and digestibility of sorghum (*Sorghum bicolor* L. Moench) stover, cowpea (*Vigna unguiculata* L. Walp.) and groundnut (*Arachis hypogaea* L.) haulms by sheep, 84 (2000) 265
Cowpea (*Vigna unguiculata* L. Walp) and groundnut (*Arachys hypogea* L.) haulms as supplements to sorghum (*Sorghum bicolor* L. Moench) stover: intake, digestibility and optimum feeding levels, 87 (2000) 57

Cows
Using the DVE/OEB model to determine optimal conditions of pressure toasting on horse beans (*Vicia faba*) for the dairy feed industry, 86 (2000) 165

Crossbred bulls
Feed intake, digestibility, plane of nutrition and live weight gain by crossbred growing bulls fed on grainless diets containing different nitrogen sources, 83 (2000) 195

Crotalaria senegalensis
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Crude protein
An in vitro method for the estimation of ileal crude protein and amino acids digestibility using the dialysis tubing for pig feedstuffs, 88 (2000) 79

Cynara cardunculus
Nutritional evaluation of cardoon (*Cynara cardunculus*) seed for ruminants, 87 (2000) 203

Dairy
Measuring resistance to ruminal degradation and bioavailability of ruminally protected methionine, 84 (2000) 23

Dairy cows
Effect of feeding tamarind (*Tamarindus indica*) seed husk as a source of tannin on dry matter intake, digestibility of nutrients and production performance of crossbred dairy cows in mid-lactation, 83 (2000) 67
Stage of maturity, processing, and hybrid effects on ruminal in situ disappearance of whole-plant corn silage, 86 (2000) 83
Effect of feeding undegraded intake protein at a level greater than National Research Council recommendation on the lactational performance of crossbred cows, 87 (2000) 95
Use of chromium mordanted neutral detergent residue as a predictor of fecal output to estimate intake in grazing high producing Holstein cows, 89 (2001) 155

Defaunation
Growth performance of faunated and defaunated Malpura weaner lambs, 86 (2000) 251

Deglucosing
Quality characteristics of broiler blood meal as affected by yeast, glucose oxidase, and antioxidant treatments, 83 (2000) 159

Degradability
In vitro study of the rumen and hindgut fermentation of fibrous materials (meadow hay, beech sawdust, wheat straw) in sheep, 83 (2000) 127
The effect of animal species on in sacco degradation of dry matter and protein of feeds in the rumen, 83 (2000) 273
The influence of diet of the donor animal on the initial bacterial concentration of ruminal fluid and in vitro gas production degradability parameters, 87 (2000) 231
Protein degradability and intestinal digestibility of blood meals: comparison of two processing methods, 88 (2000) 91
Comparison of bovine rumen liquor and bovine faeces as inoculum for an in vitro gas production technique for evaluating forages, 89 (2001) 33

Degradation
Rumen digestibility of starch and nitrogen in near-isogenic lines of wheat, 85 (2000) 33

Desmodium intortum
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 1. Feed intake, digestibility and body weight change, 85 (2000) 239
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 2. Rumen fermentation and nitrogen metabolism, 87 (2000) 215

DHA
Utilisation of fish oil in ruminants. II. Transfer of fish oil fatty acids into goats' milk, 89 (2001) 201

Dicotyledons
Fermentation of the endosperm cell walls of monocotyledon and dicotyledon plant species by faecal microbes from pigs. The relationship between cell wall characteristics and fermentability, 88 (2000) 13

Dietary energy
Correlation between physical measurements and dietary energy values of wheat for poultry and pigs, 84 (2000) 1

Dietary fat
The effect of dietary fat on the performance and body composition of rabbits in their second lactation, 86 (2000) 191

Dietary fibre
Effect of dietary fibre source on total tract digestibility, caecum volatile fatty acids and digestive transit time in the weaned piglet, 87 (2000) 71

Dietary preference
Feed selection and dietary preferences of forage by small ruminants grazing natural pastures in the Sahelian zone of Cameroon, 88 (2000) 253

Digesta flow
Effects of energy and protein supplementation on microbial-N synthesis and allantoin excretion in sheep fed guinea grass, 84 (2000) 167

Digesta passage
Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 2. Rumen fermentation and digesta passage rate, 84 (2000) 229

Digestibility
Effects of different grinding methods and particle size of barley and wheat on pig performance and digestibility, 83 (2000) 1
Changes in the alkaline-labile phenolic compounds of wheat straw cell walls as affected by SO_2 treatment and passage through the gastro-intestine of sheep, 83 (2000) 115
Feed intake, digestibility, plane of nutrition and live weight gain by crossbred growing bulls fed on grainless diets containing different nitrogen sources, 83 (2000) 195
An automated system for measuring gas production from forages inoculated with rumen fluid and its use in determining the effect of enzymes on grass silage, 83 (2000) 205
Effect of replacing soybean protein with cassava leaf protein in cassava root meal based diets for growing pigs on digestibility and N retention, 83 (2000) 223
Feeding tallow triglycerides of different saturation and particle size to lactating dairy cows, 83 (2000) 249
Effect of heat treatment of soybean meal and fish meal on amino acid digestibility in mink and dairy cows, 84 (2000) 83
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137
Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 1. Milk production and feed utilisation, 84 (2000) 213

Effect of selective consumption on voluntary intake and digestibility of sorghum (*Sorghum bicolor* L. Moench) stover, cowpea (*Vigna unguiculata* L. Walp.) and groundnut (*Arachis hypogaea* L.) haulms by sheep, 84 (2000) 265
Composition and digestibility of beet pulp with and without molasses and dried using three methods, 85 (2000) 121
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 1. Feed intake, digestibility and body weight change, 85 (2000) 239
Nutritional value of rapeseed meal containing lecithin gums precipitated with citric acid, 86 (2000) 117
The potential of forage–maize intercrops in ruminant nutrition, 86 (2000) 157
Phosphate rather than surfactant accounts for the main contribution to enhanced fibre digestibility resulting from treatment with boiling neutral detergent, 86 (2000) 177
The effect of sample drying conditions on estimates of condensed tannin and fibre content, dry matter digestibility, nitrogen digestibility and PEG binding of *Calliandra calothyrsus*, 87 (2000) 29
Effect of dietary fibre source on total tract digestibility, caecum volatile fatty acids and digestive transit time in the weaned piglet, 87 (2000) 71
Nutritive value of coarse and fine wheat brans for rabbits, 88 (2000) 239
Lupinus luteus, *Vicia sativa* and *Lathyrus cicera* as protein sources for piglets: ileal and total tract apparent digestibility of amino acids and antigenic effects, 89 (2001) 1

Digestibility and balance of nutrients
Performance of lambs fed expeller pressed and solvent extracted karanj (*Pongamia pinnata*) oil cake, 88 (2000) 121

Digestion
Effect of a yeast culture (*Saccharomyces cerevisiae*) and monensin on ruminal fermentation and digestion in sheep, 83 (2000) 165
Measuring resistance to ruminal degradation and bioavailability of ruminally protected methionine, 84 (2000) 23
Rumen digestibility of starch and nitrogen in near-isogenic lines of wheat, 85 (2000) 33
Comparative evaluation of the effects of coconut oil, oilseeds and crystalline fat on methane release, digestion and energy balance in lambs, 85 (2000) 41
Stage of maturity, processing, and hybrid effects on ruminal in situ disappearance of whole-plant corn silage, 86 (2000) 83
Evaluation of oligosaccharide addition to dog diets: influences on nutrient digestion and microbial populations, 86 (2000) 205
Effect of regrowth age on intake and digestion of *Digitaria decumbens* consumed by Black-belly sheep, 87 (2000) 153
The use of near infrared spectroscopy to investigate the composition of silages and the rate and extent of cell-wall degradation, 88 (2000) 139
Effects of multinutrient blocks and polyethylene glycol 4000 supplies on intake and digestion by sheep fed *Acacia cyanophylla* Lindl. foliage-based diets, 88 (2000) 219

Digestion kinetics
Influence of nonfiber carbohydrate concentration on forage fiber digestion in vitro, 86 (2000) 107

Digitaria decumbens
Effect of regrowth age on intake and digestion of *Digitaria decumbens* consumed by Black-belly sheep, 87 (2000) 153

Direct-fed microbials
Influence of an anaerobic fungal culture administration on in vivo ruminal fermentation and nutrient digestion, 88 (2000) 201

Disappearance kinetics
Ruminal nitrogen disappearance from sod-seeded cereal grain forages in Northern Arkansas, 89 (2001) 17

Distillers' grains
Chemical characterization and in situ nutrient degradability of wet distillers' grains derived from barley-based ethanol production, 83 (2000) 301

DM intake
Feed intake, sperm output and seminal characteristics of Ethiopian highland sheep supplemented with different levels of leucaena (*Leucaena leucocephala*) leaf hay, 86 (2000) 239

DMD
The effect of PEG addition in vitro on dry matter and nitrogen digestibility of *Calliandra calothyrsus* and *Leucaena leucocephala* leaf, 85 (2000) 259
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG): the effect of

sample pretreatment on dry matter and nitrogen digestibility as well as PEG binding of *Calliandra calothyrsus*, 86 (2000) 149

Dry matter
The effect of animal species on in sacco degradation of dry matter and protein of feeds in the rumen, 83 (2000) 273

Dry matter loss
Cellulase treatment of untreated and steam pretreated rice straw — effect on in vitro fermentation characteristics, 88 (2000) 189

Dry sub-humid
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Drying
Composition and digestibility of beet pulp with and without molasses and dried using three methods, 85 (2000) 121

Duodenal flow
Heat treatment of rapeseed meal increases phytate flow into the duodenum of sheep, 88 (2000) 31

DVE/OEB model
Using the DVE/OEB model to determine optimal conditions of pressure toasting on horse beans (*Vicia faba*) for the dairy feed industry, 86 (2000) 165

Egg performance
The use of step-down and modified constant protein feeding systems in developing pullets reared in hot climates, 85 (2000) 171

Egg powder
Effects of increasing amounts of *Lupinus albus* seeds without or with whole egg powder in the diet of growing pigs on performance, 83 (2000) 89

Egg production
Laying performance of Japanese quail fed graded levels of neem (*Azadirachta indica*) kernel meal incorporated diets, 88 (2000) 113

Energy
The energy value of *Lupinus angustifolius* and *Lupinus albus* for growing pigs, 83 (2000) 17
Effects of energy and protein supplementation on microbial-N synthesis and allantoin excretion in sheep fed guinea grass, 84 (2000) 167
Nutritive value of coarse and fine wheat brans for rabbits, 88 (2000) 239

Energy metabolism
Energy metabolism with particular reference to methane production in Muzaffarnagari sheep fed rations varying in roughage to concentrate ratio, 83 (2000) 287

Energy utilization
Comparative evaluation of the effects of coconut oil, oilseeds and crystalline fat on methane release, digestion and energy balance in lambs, 85 (2000) 41

Ensiled cassava leaves
Effect of replacing soybean protein with cassava leaf protein in cassava root meal based diets for growing pigs on digestibility and N retention, 83 (2000) 223

Enzymatic activity
In vitro microbial fermentation of tropical grasses at an advanced maturity stage, 83 (2000) 145

Enzyme
Exogenous enzymes in monogastric nutrition — their current value and future benefits, 86 (2000) 1
The effect of an exogenous enzyme treatment on production and carcass characteristics of growing and finishing steers, 87 (2000) 279

Enzyme treatment
Cellulase treatment of untreated and steam pretreated rice straw — effect on in vitro fermentation characteristics, 88 (2000) 189

EPA
Utilisation of fish oil in ruminants. II. Transfer of fish oil fatty acids into goats' milk, 89 (2001) 201

Equine hindgut
Feeding ground and pelleted hay rather than chopped hay to ponies. 1. Consequences for in vivo digestibility and rate of passage of digesta, 87 (2000) 117
Feeding ground and pelleted hay rather than chopped hay to ponies. 2. Consequences on fibre degradation in the cecum and the colon, 87 (2000) 131

Esterases
Effects of fungal enzyme preparations on hydrolysis and subsequent degradation of alfalfa hay fiber by mixed rumen microorganisms in vitro, 88 (2000) 153

Evaluation with broilers
A note on a comparison of the feeding value of sweet potato vines and lucerne meal for broiler chickens, 85 (2000) 145

Expansion
Particle size and heat treatment of barley in diets for early-weaned piglets, 84 (2000) 13

Faeces
Comparison of bovine rumen liquor and bovine faeces as inoculum for an in vitro gas production technique for evaluating forages, 89 (2001) 33

Fat digestibility
Interactions between dietary fat type and enzyme supplementation in broiler diets with high pentosan contents: effects on precaecal and total tract digestibility of fatty acids, metabolizability of gross energy, digesta viscosity and weights of small intestine, 84 (2000) 279

Fat supplementation
Effects of untreated and heat-treated canola presscake on milk yield and composition of dairy cows, 89 (2001) 97

Fatty acids
Feeding tallow triglycerides of different saturation and particle size to lactating dairy cows, 83 (2000) 249
Utilisation of fish oil in ruminants. II. Transfer of fish oil fatty acids into goats' milk, 89 (2001) 201

Feed
Carotene content of *Azolla* and its variations during drying and storage treatments, 84 (2000) 295

Feed conversion efficiency
Performance of lambs fed expeller pressed and solvent extracted karanj (*Pongamia pinnata*) oil cake, 88 (2000) 121

Feed intake
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 1. Feed intake, digestibility and body weight change, 85 (2000) 239

Feeding stuffs
FibreCap: an improved method for the rapid analysis of fibre in feeding stuffs, 86 (2000) 125

Feedstuffs
Estimating ruminal crude protein degradation with in situ and chemical fractionation procedures, 85 (2000) 195
Characterisation of feedstuffs for ruminants using some physical parameters, 86 (2000) 53

Fermentation
In vitro study of the rumen and hindgut fermentation of fibrous materials (meadow hay, beech sawdust, wheat straw) in sheep, 83 (2000) 127
An automated system for measuring gas production from forages inoculated with rumen fluid and its use in determining the effect of enzymes on grass silage, 83 (2000) 205
Effects of various compounds on in vitro ruminal fermentation and production of sulfide, 84 (2000) 69
Evaluation of oligosaccharide addition to dog diets: influences on nutrient digestion and microbial populations, 86 (2000) 205
Effects of dry plant extracts on fermentation and methanogenesis in continuous culture of rumen microbes, 87 (2000) 263
Fermentation of the endosperm cell walls of monocotyledon and dicotyledon plant species by faecal microbes from pigs. The relationship between cell wall characteristics and fermentability, 88 (2000) 13
The effect of bacterial inoculants on the fermentation and aerobic stability of whole crop wheat silage, 88 (2000) 39
Influence of an anaerobic fungal culture administration on in vivo ruminal fermentation and nutrient digestion, 88 (2000) 201
Effects of multinutrient blocks and polyethylene glycol 4000 supplies on intake and digestion by sheep fed *Acacia cyanophylla* Lindl. foliage-based diets, 88 (2000) 219
Effect of inoculation of herbage prior to ensiling with *Streptomyces achromogenes* ISP 5028 on chemical composition of silage, 89 (2001) 83

Fermentation kinetics
Comparison of bovine rumen liquor and bovine faeces as inoculum for an in vitro gas production technique for evaluating forages, 89 (2001) 33

Ferulic acid
Changes in the alkaline-labile phenolic compounds of wheat straw cell walls as affected by SO_2 treatment and passage through the gastro-intestine of sheep, 83 (2000) 115

Fiber
Stage of maturity, processing, and hybrid effects on ruminal in situ disappearance of whole-plant corn silage, 86 (2000) 83
Influence of nonfiber carbohydrate concentration on forage fiber digestion in vitro, 86 (2000) 107
Intra-caecal fermentation parameters in ponies fed botanically diverse fibre-based diets, 84 (2000) 183
FibreCap: an improved method for the rapid analysis of fibre in feeding stuffs, 86 (2000) 125
Nutritive value of coarse and fine wheat brans for rabbits, 88 (2000) 239

Fiber concentration
Divergent selection for two laboratory predictors of voluntary intake: relationships among the predictors and leaf morphology variables, 84 (2000) 107

Fibre analysis
The effect of sample drying conditions on estimates of condensed tannin and fibre content, dry matter digestibility, nitrogen digestibility and PEG binding of *Calliandra calothyrsus*, 87 (2000) 29

Fibre digestion
Feeding ground and pelleted hay rather than chopped hay to ponies. 1. Consequences for in vivo digestibility and rate of passage of digesta, 87 (2000) 117
Feeding ground and pelleted hay rather than chopped hay to ponies. 2. Consequences on fibre degradation in the cecum and the colon, 87 (2000) 131

Fibre fermentation
Effects of raw and modified canola lecithins compared to canola oil, canola seed and soy lecithin on ruminal fermentation measured with rumen simulation technique, 85 (2000) 153

Fibres
Effect of methods of analysis and heat treatment on viscosity of wheat, barley and oats, 88 (2000) 1

Fibrolytic enzymes
Effects of fungal enzyme preparations on hydrolysis and subsequent degradation of alfalfa hay fiber by mixed rumen microorganisms in vitro, 88 (2000) 153

Fibrous feed
The effect of four fibrous feed supplementations on different welfare traits in veal calves, 84 (2000) 129

Filter bags
A comparison of filter bag methods with conventional tube methods of determining the in vitro digestibility of forages, 84 (2000) 33

Fineness
Effects of different grinding methods and particle size of barley and wheat on pig performance and digestibility, 83 (2000) 1

Finishing
The effect of an exogenous enzyme treatment on production and carcass characteristics of growing and finishing steers, 87 (2000) 279

Fish meal
Effect of heat treatment of soybean meal and fish meal on amino acid digestibility in mink and dairy cows, 84 (2000) 83
Studies on blood biochemical constituents and rumen fermentation in growing buffalo calves fed ammoniated straw-based rations supplemented with different protein sources, 89 (2001) 119

Flavonoid
Effects of dry plant extracts on fermentation and methanogenesis in continuous culture of rumen microbes, 87 (2000) 263

Foliage
Chemical composition and degradation characteristics of foliage of some African multipurpose trees, 86 (2000) 27

Forage quality
Yield and quality characteristics of bahiagrass (*Paspalum notatum*) exposed to ground-level ozone, 84 (2000) 243
The influence of diet of the donor animal on the initial bacterial concentration of ruminal fluid and in vitro gas production degradability parameters, 87 (2000) 231

Forages
A comparison of filter bag methods with conventional tube methods of determining the in vitro digestibility of forages, 84 (2000) 33
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137
Comparison of bovine rumen liquor and bovine faeces as inoculum for an in vitro gas production technique for evaluating forages, 89 (2001) 33

Forbs
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Foregut fermentation
Comparison of the digestive ability of crop fluid from the folivorous Hoatzin (*Opisthocomus hoazin*) and cow rumen fluid with seven tropical forages, 87 (2000) 287

Gas production
In vitro microbial fermentation of tropical grasses at an advanced maturity stage, 83 (2000) 145
An automated system for measuring gas production from forages inoculated with rumen fluid and its use in determining the effect of enzymes on grass silage, 83 (2000) 205
Nutritive evaluation of some Acacia tree leaves from Kenya, 85 (2000) 89
The influence of diet of the donor animal on the initial bacterial concentration of ruminal fluid and in vitro gas production degradability parameters, 87 (2000) 231
The effect of fermentable nitrogen availability on in vitro gas production and degradability of NDF, 87 (2000) 241
Cellulase treatment of untreated and steam pre-treated rice straw — effect on in vitro fermentation characteristics, 88 (2000) 189

Gastrointestinal passage rate
Feeding ground and pelleted hay rather than chopped hay to ponies. 1. Consequences for in vivo digestibility and rate of passage of digesta, 87 (2000) 117

Genetics
Rumen digestibility of starch and nitrogen in near-isogenic lines of wheat, 85 (2000) 33

Gliricidia maculata
Classification and comparison of *Gliricidia* provenances using near infrared reflectance spectroscopy, 86 (2000) 221

Gliricidia sepium
Classification and comparison of *Gliricidia* provenances using near infrared reflectance spectroscopy, 86 (2000) 221

β-glucanase
Exogenous enzymes in monogastric nutrition — their current value and future benefits, 86 (2000) 1

Glucose tolerance
Efficacy of chromium-yeast supplementation for growing beef steers, 86 (2000) 95

Goats
Chemical composition and nutritive value of some tropical by-product feedstuffs for small ruminants — in vivo and in vitro digestibility, 85 (2000) 99
Utilisation of fish oil in ruminants. II. Transfer of fish oil fatty acids into goats' milk, 89 (2001) 201

Grain
Effect of methods of analysis and heat treatment on viscosity of wheat, barley and oats, 88 (2000) 1

Grain feeding
Influence of dietary rumen-degradable protein supply on rumen characteristics and carbohydrate fermentation in beef cattle offered high-grain diets, 88 (2000) 59
Microbial nitrogen production in growing heifers: direct measurement of duodenal flow of purine bases versus urinary excretion of purine derivatives as estimation procedures, 88 (2000) 171

Grainless diets
Feed intake, digestibility, plane of nutrition and live weight gain by crossbred growing bulls fed on grainless diets containing different nitrogen sources, 83 (2000) 195

Grass silage
Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 1. Milk production and feed utilisation, 84 (2000) 213
Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 2. Rumen fermentation and digesta passage rate, 84 (2000) 229

Grasses
Alternative home-grown protein sources for ruminants in the United Kingdom, 85 (2000) 23
The use of near infrared spectroscopy to investigate the composition of silages and the rate and extent of cell-wall degradation, 88 (2000) 139

Grinding
Fractionation of pea flour with pilot scale sieving. I. Physical and chemical characteristics of pea seed fractions, 85 (2000) 61

Groundnut haulm
Cowpea (*Vigna unguiculata* L. Walp) and groundnut (*Arachys hypogea* L.) haulms as supplements to sorghum (*Sorghum bicolor* L. Moench) stover: intake, digestibility and optimum feeding levels, 87 (2000) 57

Effect of selective consumption on voluntary intake and digestibility of sorghum (*Sorghum bicolor* L. Moench) stover, cowpea (*Vigna unguiculata* L. Walp.) and groundnut (*Arachis hypogaea* L.) haulms by sheep, 84 (2000) 265

Growing
The effect of an exogenous enzyme treatment on production and carcass characteristics of growing and finishing steers, 87 (2000) 279

Growing cattle
Phosphorus nutrition of grazing cattle: a review, 89 (2001) 133

Growth
The effect of four fibrous feed supplementations on different welfare traits in veal calves, 84 (2000) 129
Efficacy of chromium-yeast supplementation for growing beef steers, 86 (2000) 95
Growth performance of faunated and defaunated Malpura weaner lambs, 86 (2000) 251

Growth performance
Blend of oil palm slurry and rice bran as feed ingredient for broiler chickens, 83 (2000) 185
Effect of source of betaine on growth performance and carcass traits in lambs, 86 (2000) 71

Growth rate
Performance of lambs fed expeller pressed and solvent extracted karanj (*Pongamia pinnata*) oil cake, 88 (2000) 121

Growth stage
Ruminal nitrogen disappearance from sod-seeded cereal grain forages in Northern Arkansas, 89 (2001) 17

Guinea grass
Effects of energy and protein supplementation on microbial-N synthesis and allantoin excretion in sheep fed guinea grass, 84 (2000) 167

Haematology
Laying performance of Japanese quail fed graded levels of neem (*Azadirachta indica*) kernel meal incorporated diets, 88 (2000) 113

Harvesting techniques
Trypsin inhibitor activity of legume seeds (peas, chickling vetch, lentils, and soya beans) as affected by the technique of harvest, 86 (2000) 261

Hay processing
Feeding ground and pelleted hay rather than chopped hay to ponies. 1. Consequences for in vivo digestibility and rate of passage of digesta, 87 (2000) 117
Feeding ground and pelleted hay rather than chopped hay to ponies. 2. Consequences on fibre degradation in the cecum and the colon, 87 (2000) 131

HCN
Effect of replacing soybean protein with cassava leaf protein in cassava root meal based diets for growing pigs on digestibility and N retention, 83 (2000) 223

Health
The effect of four fibrous feed supplementations on different welfare traits in veal calves, 84 (2000) 129

Heat treatment
Effect of heat treatment of soybean meal and fish meal on amino acid digestibility in mink and dairy cows, 84 (2000) 83
Heat treatment of rapeseed meal increases phytate flow into the duodenum of sheep, 88 (2000) 31
Effects of untreated and heat-treated canola presscake on milk yield and composition of dairy cows, 89 (2001) 97

Herbaceous dicots
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Highland sheep
Feed intake, sperm output and seminal characteristics of Ethiopian highland sheep supplemented with different levels of leucaena (*Leucaena leucocephala*) leaf hay, 86 (2000) 239

Hindgut
In vitro study of the rumen and hindgut fermentation of fibrous materials (meadow hay, beech sawdust, wheat straw) in sheep, 83 (2000) 127

Histopathology
Laying performance of Japanese quail fed graded levels of neem (*Azadirachta indica*) kernel meal incorporated diets, 88 (2000) 113

Hoatzin
Comparison of the digestive ability of crop fluid from the folivorous Hoatzin (*Opisthocomus hoazin*) and cow rumen fluid with seven tropical forages, 87 (2000) 287

Horse
Physical processing of barley and its effects on intra-caecal fermentation parameters in ponies, 85 (2000) 79

Horse bean
Using the DVE/OEB model to determine optimal conditions of pressure toasting on horse beans (*Vicia faba*) for the dairy feed industry, 86 (2000) 165

Hot climates
The use of step-down and modified constant protein feeding systems in developing pullets reared in hot climates, 85 (2000) 171

HPLC gel permeation chromatography
Characterisation of tannins and in vitro protein digestibility of several *Lotus corniculatus* varieties, 87 (2000) 41

Hydrogen peroxide
Rumen degradation in sacco in sheep of wheat straw treated with calcium oxide, sodium hydroxide and sodium hydroxide plus hydrogen peroxide, 83 (2000) 313
Effect of sodium hydroxide and alkaline hydrogen peroxide treatment on physical and chemical characteristics and IVOMD of mustard straw, 84 (2000) 257

Hydroxystearic acid
Utilisation of fish oil in ruminants. I. Fish oil metabolism in sheep, 89 (2001) 189

In sacco
The effect of animal species on in sacco degradation of dry matter and protein of feeds in the rumen, 83 (2000) 273

In sacco degradability
Nutritive evaluation of some nitrogen and non-nitrogen fixing multipurpose tree species, 88 (2000) 103

In sacco degradation
Feeding ground and pelleted hay rather than chopped hay to ponies. 2. Consequences on fibre degradation in the cecum and the colon, 87 (2000) 131

In situ
Ruminal nitrogen disappearance from sod-seeded cereal grain forages in Northern Arkansas, 89 (2001) 17

In situ degradability
Chemical composition, DM and NDF degradation kinetics in rumen of seven legume straws, 83 (2000) 75
Nutritive evaluation of some Acacia tree leaves from Kenya, 85 (2000) 89

In vitro
In vitro study of the rumen and hindgut fermentation of fibrous materials (meadow hay, beech sawdust, wheat straw) in sheep, 83 (2000) 127
Effect of temperature, pressure and alkaline treatments on meat meal quality, 89 (2001) 59

In vitro digestibility
A comparison of filter bag methods with conventional tube methods of determining the in vitro digestibility of forages, 84 (2000) 33
Effect of sodium hydroxide and alkaline hydrogen peroxide treatment on physical and chemical characteristics and IVOMD of mustard straw, 84 (2000) 257
Chemical composition and nutritive value of some tropical by-product feedstuffs for small ruminants — in vivo and in vitro digestibility, 85 (2000) 99
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG) 4000: comparison of six tanniniferous shrub legumes and the grass *Panicum maximum*, 85 (2000) 215
The effect of PEG addition in vitro on dry matter and nitrogen digestibility of *Calliandra calothyrsus* and *Leucaena leucocephala* leaf, 85 (2000) 259
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG): the effect of sample pretreatment on dry matter and nitrogen digestibility as well as PEG binding of *Calliandra calothyrsus*, 86 (2000) 149
An in vitro method for the estimation of ileal crude protein and amino acids digestibility using the dialysis tubing for pig feedstuffs, 88 (2000) 79

In vitro digestion
An approach to screening potential pasture species for condensed tannin activity, 85 (2000) 269

In vitro dry matter digestibility
Chemical composition and in vitro dry matter digestibility of four parasitic plants (*Tapinanthus lugardii*, *Erianthenum ngamicum*, *Viscum rotundifolium* and *Viscum verrucosum*) in Botswana, 84 (2000) 97

In vitro gas production
Comparison of bovine rumen liquor and bovine faeces as inoculum for an in vitro gas production technique for evaluating forages, 89 (2001) 33

In vitro studies
Predicting the nutritive value of the olive leaf (*Olea europaea*): digestibility and chemical composition and in vitro studies, 87 (2000) 187

In vivo
Chemical composition and nutritive value of some tropical by-product feedstuffs for small ruminants — in vivo and in vitro digestibility, 85 (2000) 99
Effect of temperature, pressure and alkaline treatments on meat meal quality, 89 (2001) 59

Intake
Effect of form and of quality of feed on the concentrations of purine derivatives in urinary spot samples, daily microbial N supply and predictability of intake, 85 (2000) 223
Influence of alkaloid content on intake of subspecies of *Chamaecytisus proliferus*, 85 (2000) 279
The potential of forage–maize intercrops in ruminant nutrition, 86 (2000) 157
Effect of regrowth age on intake and digestion of *Digitaria decumbens* consumed by Black-belly sheep, 87 (2000) 153
Performance of lambs fed expeller pressed and solvent extracted karanj (*Pongamia pinnata*) oil cake, 88 (2000) 121
Effects of multinutrient blocks and polyethylene glycol 4000 supplies on intake and digestion by sheep fed *Acacia cyanophylla* Lindl. foliage-based diets, 88 (2000) 219
Use of chromium mordanted neutral detergent residue as a predictor of fecal output to estimate intake in grazing high producing Holstein cows, 89 (2001) 155
Utilisation of fish oil in ruminants. II. Transfer of fish oil fatty acids into goats' milk, 89 (2001) 201

Intercrops
The potential of forage–maize intercrops in ruminant nutrition, 86 (2000) 157

Intestinal digestibility
Protein degradability and intestinal digestibility of blood meals: comparison of two processing methods, 88 (2000) 91

Intestinal function
Intestinal development and body growth of broiler chicks on diets supplemented with non-starch polysaccharides, 89 (2001) 175

Intra-caecal fermentation parameters
Intra-caecal fermentation parameters in ponies fed botanically diverse fibre-based diets, 84 (2000) 183
Physical processing of barley and its effects on intra-caecal fermentation parameters in ponies, 85 (2000) 79

Intramuscular fat
Effect of source of betaine on growth performance and carcass traits in lambs, 86 (2000) 71

In-vitro digestibility
Comparison of the digestive ability of crop fluid from the folivorous Hoatzin (*Opisthocomus hoazin*) and cow rumen fluid with seven tropical forages, 87 (2000) 287

Ionophores
The effects of feeding monensin and yeast culture, alone or in combination, on the concentration and generic composition of rumen protozoa in steers fed on low-quality pasture supplemented with increasing levels of concentrate, 84 (2000) 121

Iron–amino acid complex
Bioavailability of iron from amino acid complex in weanling pigs, 86 (2000) 39

Iso-production curves
Cowpea (*Vigna unguiculata* L. Walp) and groundnut (*Arachys hypogea* L.) haulms as supplements to sorghum (*Sorghum bicolor* L. Moench) stover: intake, digestibility and optimum feeding levels, 87 (2000) 57

Karanj (*Pongamia pinnata*) cake
Performance of lambs fed expeller pressed and solvent extracted karanj (*Pongamia pinnata*) oil cake, 88 (2000) 121

***L. albus* seeds**
Effects of increasing amounts of *Lupinus albus* seeds without or with whole egg powder in the diet of growing pigs on performance, 83 (2000) 89

Lambs
Chemical changes and influences of rapeseed antinutritional factors on lamb physiology and performance. 3. Antinutritional factors in plasma and organs, 85 (2000) 111
Effect of source of betaine on growth performance and carcass traits in lambs, 86 (2000) 71
Growth performance of faunated and defaunated Malpura weaner lambs, 86 (2000) 251
Performance of lambs fed expeller pressed and solvent extracted karanj (*Pongamia pinnata*) oil cake, 88 (2000) 121

Lathyrism
A review of the potential of *Lathyrus sativus* L. and *L. cicera* L. grain for use as animal feed, 87 (2000) 1

Lathyrus
A review of the potential of *Lathyrus sativus* L. and *L. cicera* L. grain for use as animal feed, 87 (2000) 1

Lathyrus cicera
Lupinus luteus, *Vicia sativa* and *Lathyrus cicera* as protein sources for piglets: ileal and total tract apparent digestibility of amino acids and antigenic effects, 89 (2001) 1

Leaf
Nutritional properties of the leaf and stem of rice straw, 83 (2000) 57

Lecithin
Effects of raw and modified canola lecithins compared to canola oil, canola seed and soy lecithin on ruminal fermentation measured with rumen simulation technique, 85 (2000) 153

Legume seeds
Trypsin inhibitor activity of legume seeds (peas, chickling vetch, lentils, and soya beans) as affected by the technique of harvest, 86 (2000) 261

Legume straws
Chemical composition, DM and NDF degradation kinetics in rumen of seven legume straws, 83 (2000) 75

Legumes
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137
Alternative home-grown protein sources for ruminants in the United Kingdom, 85 (2000) 23

Leucaena leucocephala
Feed intake, sperm output and seminal characteristics of Ethiopian highland sheep supplemented with different levels of leucaena (*Leucaena leucocephala*) leaf hay, 86 (2000) 239

Linseed
Protein quality of linseed for growing broiler chicks, 84 (2000) 155

Lipid digestion
Inhibitory effect of dietary carboxymethylcellulose on fat digestibility in rats fed diets containing either starch or glucose, 85 (2000) 139

Lipids
Comparative evaluation of the effects of coconut oil, oilseeds and crystalline fat on methane release, digestion and energy balance in lambs, 85 (2000) 41

Liquid diet
Revival performance of growing buffalo calves fed on urea molasses liquid diet and roughage as survival feed, 87 (2000) 253

Live weight change
Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 1. Milk production and feed utilisation, 84 (2000) 213

Lupins
The energy value of *Lupinus angustifolius* and *Lupinus albus* for growing pigs, 83 (2000) 17

Lupinus luteus
Lupinus luteus, *Vicia sativa* and *Lathyrus cicera* as protein sources for piglets: ileal and total tract apparent digestibility of amino acids and antigenic effects, 89 (2001) 1

Lys
Effective rumen degradability and intestinal indigestibility of individual amino acids in solvent-extracted soybean meal (SBM) and xylose-treated SBM (SoyPass^{R}) determined in situ, 83 (2000) 31

Maize silage
Evaluation of the chemical composition and the particle size of maize silages produced in north-west of Portugal, 83 (2000) 173
Comparison of major carbohydrate fractions and cell wall digestibility in silages made from older and newer maize genotypes grown in the UK, 89 (2001) 69

Maize sources
Effect of sources of maize and maize particle sizes on the utilization of phytate phosphorus in broiler chicks, 86 (2000) 15

Maize stover
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 1. Feed intake, digestibility and body weight change, 85 (2000) 239
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 2. Rumen

fermentation and nitrogen metabolism, 87 (2000) 215

Maize–soyabean meal
Effect of sources of maize and maize particle sizes on the utilization of phytate phosphorus in broiler chicks, 86 (2000) 15

MALDI-TOF mass spectrometry
Characterisation of tannins and in vitro protein digestibility of several *Lotus corniculatus* varieties, 87 (2000) 41

Markers
A comparison of total collection and marker technique for the measurement of apparent digestibility of diets for growing pigs, 89 (2001) 49
Use of chromium mordanted neutral detergent residue as a predictor of fecal output to estimate intake in grazing high producing Holstein cows, 89 (2001) 155

Meals
Nutritional value of rapeseed meal containing lecithin gums precipitated with citric acid, 86 (2000) 117

Measurement methods
The influence of hydrochloric acid concentration and measurement method on the determination of amino acid levels in soya bean products, 87 (2000) 173

Meat meals
Effect of temperature, pressure and alkaline treatments on meat meal quality, 89 (2001) 59

Met
Effective rumen degradability and intestinal indigestibility of individual amino acids in solvent-extracted soybean meal (SBM) and xylose-treated SBM (SoyPass®) determined in situ, 83 (2000) 31

Methane
Comparative evaluation of the effects of coconut oil, oilseeds and crystalline fat on methane release, digestion and energy balance in lambs, 85 (2000) 41
Effects of raw and modified canola lecithins compared to canola oil, canola seed and soy lecithin on ruminal fermentation measured with rumen simulation technique, 85 (2000) 153

Methane production
Energy metabolism with particular reference to methane production in Muzaffarnagari sheep fed rations varying in roughage to concentrate ratio, 83 (2000) 287

Methanogenesis
Effects of dry plant extracts on fermentation and methanogenesis in continuous culture of rumen microbes, 87 (2000) 263

Methionine
Measuring resistance to ruminal degradation and bioavailability of ruminally protected methionine, 84 (2000) 23
The effect of DL-methionine and betaine on growth performance and carcass characteristics in broilers, 87 (2000) 85

Methods
Estimating ruminal crude protein degradation with in situ and chemical fractionation procedures, 85 (2000) 195

Microbial activity
Comparison of bovine rumen liquor and bovine faeces as inoculum for an in vitro gas production technique for evaluating forages, 89 (2001) 33

Microbial colonization
Colonization and source of N substrates used by microorganisms digesting forages incubated in synthetic fibre bags in the rumen, 83 (2000) 261

Microbial composition
Microbial protein supply from the rumen, 85 (2000) 1

Microbial protein
Effects of energy and protein supplementation on microbial-N synthesis and allantoin excretion in sheep fed guinea grass, 84 (2000) 167

Microbial protein synthesis
Microbial nitrogen production in growing heifers: direct measurement of duodenal flow of purine bases versus urinary excretion of purine derivatives as estimation procedures, 88 (2000) 171

Microbial synthesis
Microbial protein supply from the rumen, 85 (2000) 1

Micronization
Particle size and heat treatment of barley in diets for early-weaned piglets, 84 (2000) 13

Micro-organism
Effects of dry plant extracts on fermentation and methanogenesis in continuous culture of rumen microbes, 87 (2000) 263

Milk fat
Protection of conjugated linoleic acids from ruminal hydrogenation and their incorporation into milk fat, 86 (2000) 139

Milk fatty acids
Effects of untreated and heat-treated canola presscake on milk yield and composition of dairy cows, 89 (2001) 97

Milk production
Effect of concentrate type on rumen fermentation and milk production of cows at pasture, 84 (2000) 199
Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 1. Milk production and feed utilisation, 84 (2000) 213

Milk yield
Utilisation of fish oil in ruminants. II. Transfer of fish oil fatty acids into goats' milk, 89 (2001) 201

Milling
Effects of different grinding methods and particle size of barley and wheat on pig performance and digestibility, 83 (2000) 1

Mobile nylon bag technique
Effective rumen degradability and intestinal indigestibility of individual amino acids in solvent-extracted soybean meal (SBM) and xylose-treated SBM (SoyPass^{R}) determined in situ, 83 (2000) 31

Molasses
Composition and digestibility of beet pulp with and without molasses and dried using three methods, 85 (2000) 121
Revival performance of growing buffalo calves fed on urea molasses liquid diet and roughage as survival feed, 87 (2000) 253

Monensin
Effect of a yeast culture (*Saccharomyces cerevisiae*) and monensin on ruminal fermentation and digestion in sheep, 83 (2000) 165
The effects of feeding monensin and yeast culture, alone or in combination, on the concentration and generic composition of rumen protozoa in steers fed on low-quality pasture supplemented with increasing levels of concentrate, 84 (2000) 121

Monocotyledons
Fermentation of the endosperm cell walls of monocotyledon and dicotyledon plant species by faecal microbes from pigs. The relationship between cell wall characteristics and fermentability, 88 (2000) 13

Monogastric
Exogenous enzymes in monogastric nutrition — their current value and future benefits, 86 (2000) 1

Multinutrient block
Effects of multinutrient blocks and polyethylene glycol 4000 supplies on intake and digestion by sheep fed *Acacia cyanophylla* Lindl. foliage-based diets, 88 (2000) 219

Multipurpose trees
Classification and comparison of *Gliricidia* provenances using near infrared reflectance spectroscopy, 86 (2000) 221

Multivariate
Classification and comparison of *Gliricidia* provenances using near infrared reflectance spectroscopy, 86 (2000) 221

Mustard straw
Effect of sodium hydroxide and alkaline hydrogen peroxide treatment on physical and chemical characteristics and IVOMD of mustard straw, 84 (2000) 257

Muzaffarnagari sheep
Energy metabolism with particular reference to methane production in Muzaffarnagari sheep fed rations varying in roughage to concentrate ratio, 83 (2000) 287

NDF fermentation
The effect of fermentable nitrogen availability on in vitro gas production and degradability of NDF, 87 (2000) 241

N-digestibility
The effect of PEG addition in vitro on dry matter and nitrogen digestibility of *Calliandra calothyrsus* and *Leucaena leucocephala* leaf, 85 (2000) 259
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG): the effect of sample pretreatment on dry matter and nitrogen digestibility as well as PEG binding of *Calliandra calothyrsus*, 86 (2000) 149

Near infrared reflectance spectroscopy (NIRS)
Classification and comparison of *Gliricidia* provenances using near infrared reflectance spectroscopy, 86 (2000) 221

Near infrared spectroscopy
The use of near infrared spectroscopy to investigate the composition of silages and the rate and extent of cell-wall degradation, 88 (2000) 139

Neem kernel meal
Laying performance of Japanese quail fed graded levels of neem (*Azadirachta indica*) kernel meal incorporated diets, 88 (2000) 113

Neutral detergent
Phosphate rather than surfactant accounts for the main contribution to enhanced fibre digestibility resulting from treatment with boiling neutral detergent, 86 (2000) 177

Nigeria
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Nitrogen
Saccharomyces cerevisiae and nitrogenous supplementation in growing steers grazing tropical pastures, 83 (2000) 49
Rumen digestibility of starch and nitrogen in near-isogenic lines of wheat, 85 (2000) 33
Ruminal nitrogen disappearance from sod-seeded cereal grain forages in Northern Arkansas, 89 (2001) 17

Nitrogen retention
Effects of different grinding methods and particle size of barley and wheat on pig performance and digestibility, 83 (2000) 1
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 2. Rumen fermentation and nitrogen metabolism, 87 (2000) 215

Nitrogen source
Feed intake, digestibility, plane of nutrition and live weight gain by crossbred growing bulls fed on grainless diets containing different nitrogen sources, 83 (2000) 195

Nitrogen utilization
Effect of replacing soybean protein with cassava leaf protein in cassava root meal based diets for growing pigs on digestibility and N retention, 83 (2000) 223

Nonfiber carbohydrate
Influence of nonfiber carbohydrate concentration on forage fiber digestion in vitro, 86 (2000) 107

Nonruminant
Effect of heat treatment of soybean meal and fish meal on amino acid digestibility in mink and dairy cows, 84 (2000) 83

Non-starch polysaccharide
Intestinal development and body growth of broiler chicks on diets supplemented with non-starch polysaccharides, 89 (2001) 175

Non-starch polysaccharides
Composition and digestibility of beet pulp with and without molasses and dried using three methods, 85 (2000) 121

NRC
Effect of feeding undegraded intake protein at a level greater than National Research Council recommendation on the lactational performance of crossbred cows, 87 (2000) 95

Nutrient composition
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Nutrient degradability
Chemical characterization and in situ nutrient degradability of wet distillers' grains derived from barley-based ethanol production, 83 (2000) 301

Nutrient utilization
Growth performance of faunated and defaunated Malpura weaner lambs, 86 (2000) 251

Nutritional value
Nutritional properties of the leaf and stem of rice straw, 83 (2000) 57

Nutritive value
Energy metabolism with particular reference to methane production in Muzaffarnagari sheep fed rations varying in roughage to concentrate ratio, 83 (2000) 287
Nutritive evaluation of some Acacia tree leaves from Kenya, 85 (2000) 89
Predicting the nutritive value of the olive leaf (*Olea europaea*): digestibility and chemical composition and in vitro studies, 87 (2000) 187
Nutritional evaluation of cardoon (*Cynara cardunculus*) seed for ruminants, 87 (2000) 203
Nutritive evaluation of some nitrogen and non-nitrogen fixing multipurpose tree species, 88 (2000) 103

Nylon bag technique
Effective rumen degradability and intestinal indigestibility of individual amino acids in solvent-extracted soybean meal (SBM) and xylose-treated SBM (SoyPass®) determined in situ, 83 (2000) 31

Oats
Effect of methods of analysis and heat treatment on viscosity of wheat, barley and oats, 88 (2000) 1

ODAP
A review of the potential of *Lathyrus sativus* L. and *L. cicera* L. grain for use as animal feed, 87 (2000) 1

Odd-chain fatty acids
Microbial protein supply from the rumen, 85 (2000) 1

Oil palm slurry
Blend of oil palm slurry and rice bran as feed ingredient for broiler chickens, 83 (2000) 185

Oilseeds
Comparative evaluation of the effects of coconut oil, oilseeds and crystalline fat on methane release, digestion and energy balance in lambs, 85 (2000) 41

Oligosaccharides
Evaluation of oligosaccharide addition to dog diets: influences on nutrient digestion and microbial populations, 86 (2000) 205

Olive leaves
Predicting the nutritive value of the olive leaf (*Olea europaea*): digestibility and chemical composition and in vitro studies, 87 (2000) 187

Optimal pressure toasting
Using the DVE/OEB model to determine optimal conditions of pressure toasting on horse beans (*Vicia faba*) for the dairy feed industry, 86 (2000) 165

Optimum feeding levels
Effect of selective consumption on voluntary intake and digestibility of sorghum (*Sorghum bicolor* L. Moench) stover, cowpea (*Vigna unguiculata* L. Walp.) and groundnut (*Arachis hypogaea* L.) haulms by sheep, 84 (2000) 265

Optimum ration
Cowpea (*Vigna unguiculata* L. Walp) and groundnut (*Arachys hypogea* L.) haulms as supplements to sorghum (*Sorghum bicolor* L. Moench) stover: intake, digestibility and optimum feeding levels, 87 (2000) 57

Osmotic pressure
Characterisation of feedstuffs for ruminants using some physical parameters, 86 (2000) 53

Ozone
Yield and quality characteristics of bahiagrass (*Paspalum notatum*) exposed to ground-level ozone, 84 (2000) 243

Parasitic plants
Chemical composition and in vitro dry matter digestibility of four parasitic plants (*Tapinanthus lugardii*, *Erianthenum ngamicum*, *Viscum rotundifolium* and *Viscum verrucosum*) in Botswana, 84 (2000) 97

Particle size
Evaluation of the chemical composition and the particle size of maize silages produced in north-west of Portugal, 83 (2000) 173
Feeding tallow triglycerides of different saturation and particle size to lactating dairy cows, 83 (2000) 249
Particle size and heat treatment of barley in diets for early-weaned piglets, 84 (2000) 13
Divergent selection for two laboratory predictors of voluntary intake: relationships among the predictors and leaf morphology variables, 84 (2000) 107
Fractionation of pea flour with pilot scale sieving. I. Physical and chemical characteristics of pea seed fractions, 85 (2000) 61
Effect of sources of maize and maize particle sizes on the utilization of phytate phosphorus in broiler chicks, 86 (2000) 15
Characterisation of feedstuffs for ruminants using some physical parameters, 86 (2000) 53

Pasture
Effect of concentrate type on rumen fermentation and milk production of cows at pasture, 84 (2000) 199
Use of chromium mordanted neutral detergent residue as a predictor of fecal output to estimate intake in grazing high producing Holstein cows, 89 (2001) 155

***p*-Coumaric acid**
Changes in the alkaline-labile phenolic compounds of wheat straw cell walls as affected by SO_2 treatment and passage through the gastro-intestine of sheep, 83 (2000) 115

Pea
Fractionation of pea flour with pilot scale sieving. I. Physical and chemical characteristics of pea seed fractions, 85 (2000) 61

Pectinase
Influence of supplemental enzymes on the performance and phosphorus excretion of broilers fed wheat-based diets to 6 weeks of age, 89 (2001) 113

PEG
An approach to screening potential pasture species for condensed tannin activity, 85 (2000) 269
Effects of multinutrient blocks and polyethylene glycol 4000 supplies on intake and digestion by sheep fed *Acacia cyanophylla* Lindl. foliage-based diets, 88 (2000) 219

PEG 4000
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG) 4000: comparison of six tanniniferous shrub legumes and the grass *Panicum maximum*, 85 (2000) 215

PEG binding
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG) 4000: comparison of six tanniniferous shrub legumes and the grass *Panicum maximum*, 85 (2000) 215
The effect of PEG addition in vitro on dry matter and nitrogen digestibility of *Calliandra calothyrsus* and *Leucaena leucocephala* leaf, 85 (2000) 259
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG): the effect of sample pretreatment on dry matter and nitrogen digestibility as well as PEG binding of *Calliandra calothyrsus*, 86 (2000) 149
The effect of sample drying conditions on estimates of condensed tannin and fibre content, dry matter digestibility, nitrogen digestibility and PEG binding of *Calliandra calothyrsus*, 87 (2000) 29

PEG–tannin complexes
An approach to screening potential pasture species for condensed tannin activity, 85 (2000) 269

Pellets
Storage of pelleted wheat middlings in farm bins, 88 (2000) 47

Pepsin–cellulase digestibility
Vertical distribution of biomass, chemical composition and pepsin—cellulase digestibility in a perennial ryegrass sward: interaction with month of year, regrowth age and time of day, 84 (2000) 49

Perennial ryegrass
Vertical distribution of biomass, chemical composition and pepsin—cellulase digestibility in a perennial ryegrass sward: interaction with month of year, regrowth age and time of day, 84 (2000) 49

Performance
Feed intake, digestibility, plane of nutrition and live weight gain by crossbred growing bulls fed on grainless diets containing different nitrogen sources, 83 (2000) 195
Effects of *Spirulina platensis* on growth performance of weanling pigs, 83 (2000) 237
The effect of DL-methionine and betaine on growth performance and carcass characteristics in broilers, 87 (2000) 85
Effects of supplementation with vitamin E on the performance and the tissue peroxidation of broiler chicks and the stability of thigh meat against oxidative deterioration, 89 (2001) 165

Phosphate
Phosphate rather than surfactant accounts for the main contribution to enhanced fibre digestibility resulting from treatment with boiling neutral detergent, 86 (2000) 177

Phosphorus
Effect of microbial phytase produced from a fungus *Aspergillus niger* on bioavailability of phosphorus and calcium in broiler chickens, 83 (2000) 103

Phosphorus excretion
Influence of supplemental enzymes on the performance and phosphorus excretion of broilers fed wheat-based diets to 6 weeks of age, 89 (2001) 113

Physical and chemical characteristics
Fractionation of pea flour with pilot scale sieving. I. Physical and chemical characteristics of pea seed fractions, 85 (2000) 61

Physical characteristics
Effect of sodium hydroxide and alkaline hydrogen peroxide treatment on physical and chemical characteristics and IVOMD of mustard straw, 84 (2000) 257

Physical processing
Physical processing of barley and its effects on intra-caecal fermentation parameters in ponies, 85 (2000) 79

Physical properties
Characterisation of feedstuffs for ruminants using some physical parameters, 86 (2000) 53

Phytase
Effect of microbial phytase produced from a fungus *Aspergillus niger* on bioavailability of phosphorus and calcium in broiler chickens, 83 (2000) 103
Exogenous enzymes in monogastric nutrition — their current value and future benefits, 86 (2000) 1
Influence of supplemental enzymes on the performance and phosphorus excretion of broilers fed wheat-based diets to 6 weeks of age, 89 (2001) 113

Phytate
Effect of sources of maize and maize particle sizes on the utilization of phytate phosphorus in broiler chicks, 86 (2000) 15
Heat treatment of rapeseed meal increases phytate flow into the duodenum of sheep, 88 (2000) 31

Pig growth
Effects of increasing amounts of *Lupinus albus* seeds without or with whole egg powder in the diet of growing pigs on performance, 83 (2000) 89

Pig performance
Effects of different grinding methods and particle size of barley and wheat on pig performance and digestibility, 83 (2000) 1

Piglet nutrition
Particle size and heat treatment of barley in diets for early-weaned piglets, 84 (2000) 13

Piglets
Effect of dietary fibre source on total tract digestibility, caecum volatile fatty acids and digestive transit time in the weaned piglet, 87 (2000) 71
Effects of dry matter content on trypsin inhibitors and urease activity in heat treated soya beans fed to weaned piglets, 87 (2000) 105
Lupinus luteus, *Vicia sativa* and *Lathyrus cicera* as protein sources for piglets: ileal and total tract apparent digestibility of amino acids and antigenic effects, 89 (2001) 1

Pigs
Effects of different grinding methods and particle size of barley and wheat on pig performance and digestibility, 83 (2000) 1
The energy value of *Lupinus angustifolius* and *Lupinus albus* for growing pigs, 83 (2000) 17
Effect of replacing soybean protein with cassava leaf protein in cassava root meal based diets for growing pigs on digestibility and N retention, 83 (2000) 223
Effects of *Spirulina platensis* on growth performance of weanling pigs, 83 (2000) 237
Correlation between physical measurements and dietary energy values of wheat for poultry and pigs, 84 (2000) 1
An in vitro method for the estimation of ileal crude protein and amino acids digestibility using the dialysis tubing for pig feedstuffs, 88 (2000) 79
A comparison of total collection and marker technique for the measurement of apparent digestibility of diets for growing pigs, 89 (2001) 49

Plane of nutrition
Growth performance of faunated and defaunated Malpura weaner lambs, 86 (2000) 251

Plant breeding
Divergent selection for two laboratory predictors of voluntary intake: relationships among the predictors and leaf morphology variables, 84 (2000) 107

Plant extract
Effects of dry plant extracts on fermentation and methanogenesis in continuous culture of rumen microbes, 87 (2000) 263

Plasma lipids
Utilisation of fish oil in ruminants. I. Fish oil metabolism in sheep, 89 (2001) 189

Polyethylene glycol
Evaluation of Bengal gram (*Cicer arietinum*) husk as a source of tannin and its interference in rumen and post-rumen nutrient digestion in sheep, 85 (2000) 131

Pony
Intra-caecal fermentation parameters in ponies fed botanically diverse fibre-based diets, 84 (2000) 183
Feeding ground and pelleted hay rather than chopped hay to ponies. 1. Consequences for in vivo digestibility and rate of passage of digesta, 87 (2000) 117
Feeding ground and pelleted hay rather than chopped hay to ponies. 2. Consequences on fibre degradation in the cecum and the colon, 87 (2000) 131

Poultry
Correlation between physical measurements and dietary energy values of wheat for poultry and pigs, 84 (2000) 1

Predicting in vivo digestibility
Predicting the nutritive value of the olive leaf (*Olea europaea*): digestibility and chemical composition and in vitro studies, 87 (2000) 187

Prediction
Effect of form and of quality of feed on the concentrations of purine derivatives in urinary spot samples, daily microbial N supply and predictability of intake, 85 (2000) 223

Pretreatment
Phosphate rather than surfactant accounts for the main contribution to enhanced fibre digestibility resulting from treatment with boiling neutral detergent, 86 (2000) 177

Proanthocyanidins
Characterisation of tannins and in vitro protein digestibility of several *Lotus corniculatus* varieties, 87 (2000) 41

Protected fat supplements
Protection of conjugated linoleic acids from ruminal hydrogenation and their incorporation into milk fat, 86 (2000) 139

Protected groundnut cake
Studies on blood biochemical constituents and rumen fermentation in growing buffalo calves fed ammoniated straw-based rations supplemented with different protein sources, 89 (2001) 119

Protected lipid
Utilisation of fish oil in ruminants. II. Transfer of fish oil fatty acids into goats' milk, 89 (2001) 201
Utilisation of fish oil in ruminants. I. Fish oil metabolism in sheep, 89 (2001) 189

Protein
Effective rumen degradability and intestinal indigestibility of individual amino acids in solvent-extracted soybean meal (SBM) and xylose-treated SBM (SoyPass^{R}) determined in situ, 83 (2000) 31
Saccharomyces cerevisiae and nitrogenous supplementation in growing steers grazing tropical pastures, 83 (2000) 49
The effect of animal species on in sacco degradation of dry matter and protein of feeds in the rumen, 83 (2000) 273
Effects of energy and protein supplementation on microbial-N synthesis and allantoin excretion in sheep fed guinea grass, 84 (2000) 167
Alternative home-grown protein sources for ruminants in the United Kingdom, 85 (2000) 23
The use of step-down and modified constant protein feeding systems in developing pullets reared in hot climates, 85 (2000) 171
A review of the potential of *Lathyrus sativus* L. and *L. cicera* L. grain for use as animal feed, 87 (2000) 1

Protein degradation
Effects of raw and modified canola lecithins compared to canola oil, canola seed and soy lecithin on ruminal fermentation measured with rumen simulation technique, 85 (2000) 153
Estimating ruminal crude protein degradation with in situ and chemical fractionation procedures, 85 (2000) 195
Characterisation of tannins and in vitro protein digestibility of several *Lotus corniculatus* varieties, 87 (2000) 41

Protein evaluation
Using the DVE/OEB model to determine optimal conditions of pressure toasting on horse beans (*Vicia faba*) for the dairy feed industry, 86 (2000) 165

Protein quality
Protein quality of linseed for growing broiler chicks, 84 (2000) 155
Effect of temperature, pressure and alkaline treatments on meat meal quality, 89 (2001) 59

Protein value
Nutritional value of rapeseed meal containing lecithin gums precipitated with citric acid, 86 (2000) 117

Protein–energy interactions
The effect of fermentable nitrogen availability on in vitro gas production and degradability of NDF, 87 (2000) 241

Protozoa
The effects of feeding monensin and yeast culture, alone or in combination, on the concentration and generic composition of rumen protozoa in steers fed on low-quality pasture supplemented with increasing levels of concentrate, 84 (2000) 121

Pullet
The use of step-down and modified constant protein feeding systems in developing pullets reared in hot climates, 85 (2000) 171

Purine bases
Microbial nitrogen production in growing heifers: direct measurement of duodenal flow of purine bases versus urinary excretion of purine derivatives as estimation procedures, 88 (2000) 171

Purine derivatives
Microbial protein supply from the rumen, 85 (2000) 1
Effect of form and of quality of feed on the concentrations of purine derivatives in urinary spot samples, daily microbial N supply and predictability of intake, 85 (2000) 223
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 2. Rumen fermentation and nitrogen metabolism, 87 (2000) 215
Microbial nitrogen production in growing heifers: direct measurement of duodenal flow of purine bases versus urinary excretion of purine derivatives as estimation procedures, 88 (2000) 171

Quails
Laying performance of Japanese quail fed graded levels of neem (*Azadirachta indica*) kernel meal incorporated diets, 88 (2000) 113

Quality
Quality characteristics of broiler blood meal as affected by yeast, glucose oxidase, and antioxidant treatments, 83 (2000) 159

Rabbit
Nutritive value of coarse and fine wheat brans for rabbits, 88 (2000) 239

Rabbit does
The effect of dietary fat on the performance and body composition of rabbits in their second lactation, 86 (2000) 191

Rapeseed
Heat treatment of rapeseed meal increases phytate flow into the duodenum of sheep, 88 (2000) 31

Rapeseed lecithin gums
Nutritional value of rapeseed meal containing lecithin gums precipitated with citric acid, 86 (2000) 117

Rapeseed meal
Chemical changes and influences of rapeseed antinutritional factors on lamb physiology and performance. 3. Antinutritional factors in plasma and organs, 85 (2000) 111

Rats
Inhibitory effect of dietary carboxymethylcellulose on fat digestibility in rats fed diets containing either starch or glucose, 85 (2000) 139
Nutritional value of rapeseed meal containing lecithin gums precipitated with citric acid, 86 (2000) 117

Rearing diets
The use of step-down and modified constant protein feeding systems in developing pullets reared in hot climates, 85 (2000) 171

Regrowth age
Vertical distribution of biomass, chemical composition and pepsin—cellulase digestibility in a perennial ryegrass sward: interaction with month of year, regrowth age and time of day, 84 (2000) 49

Reproductive performance
The effect of dietary fat on the performance and body composition of rabbits in their second lactation, 86 (2000) 191

Requirements
Phosphorus nutrition of grazing cattle: a review, 89 (2001) 133

Retention time
The effects of sepiolite in broiler chicken diets of high, medium and low viscosity. Productive performance and nutritive value, 85 (2000) 183

Rice bran
Blend of oil palm slurry and rice bran as feed ingredient for broiler chickens, 83 (2000) 185

Rice straw
Nutritional properties of the leaf and stem of rice straw, 83 (2000) 57
Cellulase treatment of untreated and steam pre-treated rice straw — effect on in vitro fermentation characteristics, 88 (2000) 189

Roughage: concentrate ratios
Energy metabolism with particular reference to methane production in Muzaffarnagari sheep fed rations varying in roughage to concentrate ratio, 83 (2000) 287

Rumen
In vitro study of the rumen and hindgut fermentation of fibrous materials (meadow hay, beech sawdust, wheat straw) in sheep, 83 (2000) 127
An automated system for measuring gas production from forages inoculated with rumen fluid and its use in determining the effect of enzymes on grass silage, 83 (2000) 205
Measuring resistance to ruminal degradation and bioavailability of ruminally protected methionine, 84 (2000) 23
Effects of various compounds on in vitro ruminal fermentation and production of sulfide, 84 (2000) 69
The effects of feeding monensin and yeast culture, alone or in combination, on the concentration and generic composition of rumen protozoa in steers fed on low-quality pasture supplemented with increasing levels of concentrate, 84 (2000) 121
The effect of four fibrous feed supplementations on different welfare traits in veal calves, 84 (2000) 129
Microbial protein supply from the rumen, 85 (2000) 1
Rumen digestibility of starch and nitrogen in near-isogenic lines of wheat, 85 (2000) 33
Estimating ruminal crude protein degradation with in situ and chemical fractionation procedures, 85 (2000) 195
Stage of maturity, processing, and hybrid effects on ruminal in situ disappearance of whole-plant corn silage, 86 (2000) 83
Effects of dry plant extracts on fermentation and methanogenesis in continuous culture of rumen microbes, 87 (2000) 263
Influence of an anaerobic fungal culture administration on in vivo ruminal fermentation and nutrient digestion, 88 (2000) 201
Utilisation of fish oil in ruminants. I. Fish oil metabolism in sheep, 89 (2001) 189

Rumen ammonia
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 2. Rumen fermentation and nitrogen metabolism, 87 (2000) 215

Rumen availability
Evaluation of Bengal gram (*Cicer arietinum*) husk as a source of tannin and its interference in rumen and post-rumen nutrient digestion in sheep, 85 (2000) 131

Rumen degradability
Nutritional evaluation of cardoon (*Cynara cardunculus*) seed for ruminants, 87 (2000) 203

Rumen degradable protein
Influence of dietary rumen-degradable protein supply on rumen characteristics and carbohydrate fermentation in beef cattle offered high-grain diets, 88 (2000) 59
Microbial nitrogen production in growing heifers: direct measurement of duodenal flow of purine bases versus urinary excretion of purine derivatives as estimation procedures, 88 (2000) 171

Rumen degradation
Rumen degradation in sacco in sheep of wheat straw treated with calcium oxide, sodium hydroxide and sodium hydroxide plus hydrogen peroxide, 83 (2000) 313

Rumen fermentation
Effect of a yeast culture (*Saccharomyces cerevisiae*) and monensin on ruminal fermentation and digestion in sheep, 83 (2000) 165
Effect of concentrate type on rumen fermentation and milk production of cows at pasture, 84 (2000) 199
Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 2. Rumen fermentation and digesta passage rate, 84 (2000) 229
Influence of dietary rumen-degradable protein supply on rumen characteristics and carbohydrate fermentation in beef cattle offered high-grain diets, 88 (2000) 59
Studies on blood biochemical constituents and rumen fermentation in growing buffalo calves fed ammoniated straw-based rations supplemented with different protein sources, 89 (2001) 119

Rumen fluid inoculum
Comparison of bovine rumen liquor and bovine faeces as inoculum for an in vitro gas production technique for evaluating forages, 89 (2001) 33

Rumen hydrogenation
Protection of conjugated linoleic acids from ruminal hydrogenation and their incorporation into milk fat, 86 (2000) 139

Rumen microbes
Phosphate rather than surfactant accounts for the main contribution to enhanced fibre

digestibility resulting from treatment with boiling neutral detergent, 86 (2000) 177
The influence of diet of the donor animal on the initial bacterial concentration of ruminal fluid and in vitro gas production degradability parameters, 87 (2000) 231

Ruminal pH
Influence of nonfiber carbohydrate concentration on forage fiber digestion in vitro, 86 (2000) 107

Ruminants
Chemical composition, DM and NDF degradation kinetics in rumen of seven legume straws, 83 (2000) 75
Effect of heat treatment of soybean meal and fish meal on amino acid digestibility in mink and dairy cows, 84 (2000) 83
Alternative home-grown protein sources for ruminants in the United Kingdom, 85 (2000) 23
Rumen digestibility of starch and nitrogen in near-isogenic lines of wheat, 85 (2000) 33
Comparative evaluation of the effects of coconut oil, oilseeds and crystalline fat on methane release, digestion and energy balance in lambs, 85 (2000) 41
Effects of raw and modified canola lecithins compared to canola oil, canola seed and soy lecithin on ruminal fermentation measured with rumen simulation technique, 85 (2000) 153
Chemical composition and degradation characteristics of foliage of some African multipurpose trees, 86 (2000) 27
Characterisation of feedstuffs for ruminants using some physical parameters, 86 (2000) 53

Saccharomyces cerevisiae
Saccharomyces cerevisiae and nitrogenous supplementation in growing steers grazing tropical pastures, 83 (2000) 49
Effect of a yeast culture (*Saccharomyces cerevisiae*) and monensin on ruminal fermentation and digestion in sheep, 83 (2000) 165

Sahel
Feed selection and dietary preferences of forage by small ruminants grazing natural pastures in the Sahelian zone of Cameroon, 88 (2000) 253

Sample preparation
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG): the effect of sample pretreatment on dry matter and nitrogen digestibility as well as PEG binding of *Calliandra calothyrsus*, 86 (2000) 149

Saturation
Feeding tallow triglycerides of different saturation and particle size to lactating dairy cows, 83 (2000) 249

Savanna
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Season
Vertical distribution of biomass, chemical composition and pepsin—cellulase digestibility in a perennial ryegrass sward: interaction with month of year, regrowth age and time of day, 84 (2000) 49

Selective consumption
Effect of selective consumption on voluntary intake and digestibility of sorghum (*Sorghum bicolor* L. Moench) stover, cowpea (*Vigna unguiculata* L. Walp.) and groundnut (*Arachis hypogaea* L.) haulms by sheep, 84 (2000) 265
Cowpea (*Vigna unguiculata* L. Walp) and groundnut (*Arachys hypogea* L.) haulms as supplements to sorghum (*Sorghum bicolor* L. Moench) stover: intake, digestibility and optimum feeding levels, 87 (2000) 57

Semi-arid
Nutrient composition of native forbs of semi-arid and dry sub-humid savannas of Nigeria, 84 (2000) 137

Seminal characteristics
Feed intake, sperm output and seminal characteristics of Ethiopian highland sheep supplemented with different levels of leucaena (*Leucaena leucocephala*) leaf hay, 86 (2000) 239

Sepiolite
The effects of sepiolite in broiler chicken diets of high, medium and low viscosity. Productive performance and nutritive value, 85 (2000) 183

Sheep
Changes in the alkaline-labile phenolic compounds of wheat straw cell walls as affected by SO_2 treatment and passage through the gastro-intestine of sheep, 83 (2000) 115
Colonization and source of N substrates used by microorganisms digesting forages incubated in synthetic fibre bags in the rumen, 83 (2000) 261
Chemical composition and nutritive value of some tropical by-product feedstuffs for small

ruminants — in vivo and in vitro digestibility, 85 (2000) 99
Evaluation of Bengal gram (*Cicer arietinum*) husk as a source of tannin and its interference in rumen and post-rumen nutrient digestion in sheep, 85 (2000) 131
The potential of forage–maize intercrops in ruminant nutrition, 86 (2000) 157
Effect of regrowth age on intake and digestion of *Digitaria decumbens* consumed by Black-belly sheep, 87 (2000) 153
Predicting the nutritive value of the olive leaf (*Olea europaea*): digestibility and chemical composition and in vitro studies, 87 (2000) 187
Heat treatment of rapeseed meal increases phytate flow into the duodenum of sheep, 88 (2000) 31
Influence of an anaerobic fungal culture administration on in vivo ruminal fermentation and nutrient digestion, 88 (2000) 201
Effects of multinutrient blocks and polyethylene glycol 4000 supplies on intake and digestion by sheep fed *Acacia cyanophylla* Lindl. foliage-based diets, 88 (2000) 219

Sheep supplementation
Effects of energy and protein supplementation on microbial-N synthesis and allantoin excretion in sheep fed guinea grass, 84 (2000) 167

Sheep versus cattle
The effect of animal species on in sacco degradation of dry matter and protein of feeds in the rumen, 83 (2000) 273

Shrubs
Influence of alkaloid content on intake of subspecies of *Chamaecytisus proliferus*, 85 (2000) 279

Silage
An automated system for measuring gas production from forages inoculated with rumen fluid and its use in determining the effect of enzymes on grass silage, 83 (2000) 205
Alternative home-grown protein sources for ruminants in the United Kingdom, 85 (2000) 23
The effect of bacterial inoculants on the fermentation and aerobic stability of whole crop wheat silage, 88 (2000) 39
The use of near infrared spectroscopy to investigate the composition of silages and the rate and extent of cell-wall degradation, 88 (2000) 139
Effect of inoculation of herbage prior to ensiling with *Streptomyces achromogenes* ISP 5028 on chemical composition of silage, 89 (2001) 83

Silage degradability
Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 2. Rumen fermentation and digesta passage rate, 84 (2000) 229

Silage quality
The potential of forage–maize intercrops in ruminant nutrition, 86 (2000) 157

Small ruminants
Feed selection and dietary preferences of forage by small ruminants grazing natural pastures in the Sahelian zone of Cameroon, 88 (2000) 253

Smooth bromegrass
Divergent selection for two laboratory predictors of voluntary intake: relationships among the predictors and leaf morphology variables, 84 (2000) 107

Sodium hydroxide
Rumen degradation in sacco in sheep of wheat straw treated with calcium oxide, sodium hydroxide and sodium hydroxide plus hydrogen peroxide, 83 (2000) 313
Effect of sodium hydroxide and alkaline hydrogen peroxide treatment on physical and chemical characteristics and IVOMD of mustard straw, 84 (2000) 257

Soluble tannins
Content of soluble and bound condensed tannins of three tropical herbaceous forage legumes, 83 (2000) 139

Sorghum stover
Effect of selective consumption on voluntary intake and digestibility of sorghum (*Sorghum bicolor* L. Moench) stover, cowpea (*Vigna unguiculata* L. Walp.) and groundnut (*Arachis hypogaea* L.) haulms by sheep, 84 (2000) 265
Cowpea (*Vigna unguiculata* L. Walp) and groundnut (*Arachys hypogea* L.) haulms as supplements to sorghum (*Sorghum bicolor* L. Moench) stover: intake, digestibility and optimum feeding levels, 87 (2000) 57

SO_2-treated wheat straw
Changes in the alkaline-labile phenolic compounds of wheat straw cell walls as affected by SO_2 treatment and passage through the gastro-intestine of sheep, 83 (2000) 115

Soya bean
Effects of dry matter content on trypsin inhibitors and urease activity in heat treated soya beans fed to weaned piglets, 87 (2000) 105

Soya bean products
The influence of hydrochloric acid concentration and measurement method on the determination of amino acid levels in soya bean products, 87 (2000) 173

Soya oil
Interactions between dietary fat type and enzyme supplementation in broiler diets with high pentosan contents: effects on precaecal and total tract digestibility of fatty acids, metabolizability of gross energy, digesta viscosity and weights of small intestine, 84 (2000) 279

Soybean meal
Effect of heat treatment of soybean meal and fish meal on amino acid digestibility in mink and dairy cows, 84 (2000) 83

Stage of maturity
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 1. Feed intake, digestibility and body weight change, 85 (2000) 239

Starch
Rumen digestibility of starch and nitrogen in near-isogenic lines of wheat, 85 (2000) 33
Stage of maturity, processing, and hybrid effects on ruminal in situ disappearance of whole-plant corn silage, 86 (2000) 83

Status indicators
Phosphorus nutrition of grazing cattle: a review, 89 (2001) 133

Steer
Saccharomyces cerevisiae and nitrogenous supplementation in growing steers grazing tropical pastures, 83 (2000) 49
The effect of an exogenous enzyme treatment on production and carcass characteristics of growing and finishing steers, 87 (2000) 279

Stem
Nutritional properties of the leaf and stem of rice straw, 83 (2000) 57

Storage
Storage of pelleted wheat middlings in farm bins, 88 (2000) 47

Storage molds
Storage of pelleted wheat middlings in farm bins, 88 (2000) 47

Straw
Rumen degradation in sacco in sheep of wheat straw treated with calcium oxide, sodium hydroxide and sodium hydroxide plus hydrogen peroxide, 83 (2000) 313
Associative effects of supplementing barley straw diets with alfalfa hay on rumen environment and nutrient intake and digestibility for ewes, 87 (2000) 163

Substitution rate
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 1. Feed intake, digestibility and body weight change, 85 (2000) 239

Sugar composition
Fermentation of the endosperm cell walls of monocotyledon and dicotyledon plant species by faecal microbes from pigs. The relationship between cell wall characteristics and fermentability, 88 (2000) 13

Sugar profiles
Cellulase treatment of untreated and steam pre-treated rice straw — effect on in vitro fermentation characteristics, 88 (2000) 189

Sulfide
Effects of various compounds on in vitro ruminal fermentation and production of sulfide, 84 (2000) 69

Supplement
Chemical composition and degradation characteristics of foliage of some African multipurpose trees, 86 (2000) 27

Supplementation
Cowpea (*Vigna unguiculata* L. Walp) and groundnut (*Arachys hypogea* L.) haulms as supplements to sorghum (*Sorghum bicolor* L. Moench) stover: intake, digestibility and optimum feeding levels, 87 (2000) 57
Studies on blood biochemical constituents and rumen fermentation in growing buffalo calves fed ammoniated straw-based rations supplemented with different protein sources, 89 (2001) 119
Phosphorus nutrition of grazing cattle: a review, 89 (2001) 133

Sweet potato vines
A note on a comparison of the feeding value of sweet potato vines and lucerne meal for broiler chickens, 85 (2000) 145

Synthetic fibre bags
Colonization and source of N substrates used by microorganisms digesting forages incubated in synthetic fibre bags in the rumen, 83 (2000) 261

Tallow
Interactions between dietary fat type and enzyme supplementation in broiler diets with high pentosan contents: effects on precaecal and total tract digestibility of fatty acids, metabolizability of gross energy, digesta viscosity and weights of small intestine, 84 (2000) 279

Tamarind seed husk
Effect of feeding tamarind (*Tamarindus indica*) seed husk as a source of tannin on dry matter intake, digestibility of nutrients and production performance of crossbred dairy cows in mid-lactation, 83 (2000) 67

Tannin
Effect of feeding tamarind (*Tamarindus indica*) seed husk as a source of tannin on dry matter intake, digestibility of nutrients and production performance of crossbred dairy cows in mid-lactation, 83 (2000) 67
Evaluation of Bengal gram (*Cicer arietinum*) husk as a source of tannin and its interference in rumen and post-rumen nutrient digestion in sheep, 85 (2000) 131
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG): the effect of sample pretreatment on dry matter and nitrogen digestibility as well as PEG binding of *Calliandra calothyrsus*, 86 (2000) 149
Characterisation of tannins and in vitro protein digestibility of several *Lotus corniculatus* varieties, 87 (2000) 41
Effects of multinutrient blocks and polyethylene glycol 4000 supplies on intake and digestion by sheep fed *Acacia cyanophylla* Lindl. foliage-based diets, 88 (2000) 219

Tannin containing shrub legumes
The effect of PEG addition in vitro on dry matter and nitrogen digestibility of *Calliandra calothyrsus* and *Leucaena leucocephala* leaf, 85 (2000) 259

Tanniniferous shrubs
Comparison of the digestive ability of crop fluid from the folivorous Hoatzin (*Opisthocomus hoazin*) and cow rumen fluid with seven tropical forages, 87 (2000) 287

Techniques
The influence of diet of the donor animal on the initial bacterial concentration of ruminal fluid and in vitro gas production degradability parameters, 87 (2000) 231

Thigh meat quality
Effects of supplementation with vitamin E on the performance and the tissue peroxidation of broiler chicks and the stability of thigh meat against oxidative deterioration, 89 (2001) 165

Thiobarbituric acid reactive substance (TBARS)
Effects of supplementation with vitamin E on the performance and the tissue peroxidation of broiler chicks and the stability of thigh meat against oxidative deterioration, 89 (2001) 165

Thiocyanate ions
Chemical changes and influences of rapeseed antinutritional factors on lamb physiology and performance. 3. Antinutritional factors in plasma and organs, 85 (2000) 111

Thousand grain weight
Correlation between physical measurements and dietary energy values of wheat for poultry and pigs, 84 (2000) 1

Time of day
Vertical distribution of biomass, chemical composition and pepsin—cellulase digestibility in a perennial ryegrass sward: interaction with month of year, regrowth age and time of day, 84 (2000) 49

Titanium dioxide
A comparison of total collection and marker technique for the measurement of apparent digestibility of diets for growing pigs, 89 (2001) 49

α-Tocopherol
Effects of supplementation with vitamin E on the performance and the tissue peroxidation of broiler chicks and the stability of thigh meat against oxidative deterioration, 89 (2001) 165

Total phenolics
Nutritive evaluation of some nitrogen and non-nitrogen fixing multipurpose tree species, 88 (2000) 103

Transit time
Effect of dietary fibre source on total tract digestibility, caecum volatile fatty acids and digestive transit time in the weaned piglet, 87 (2000) 71

Tree leaves
Nutritive evaluation of some nitrogen and non-nitrogen fixing multipurpose tree species, 88 (2000) 103

Tropical browse
In vitro digestion studies using ^{14}C-labelled polyethylene glycol (PEG) 4000: comparison of six tanniniferous shrub legumes and the grass *Panicum maximum*, 85 (2000) 215
An approach to screening potential pasture species for condensed tannin activity, 85 (2000) 269

Tropical grasses
In vitro microbial fermentation of tropical grasses at an advanced maturity stage, 83 (2000) 145

Tropical legumes
Content of soluble and bound condensed tannins of three tropical herbaceous forage legumes, 83 (2000) 139

Trypsin inhibitor activity
Trypsin inhibitor activity of legume seeds (peas, chickling vetch, lentils, and soya beans) as affected by the technique of harvest, 86 (2000) 261

Trypsin inhibitors
Effects of dry matter content on trypsin inhibitors and urease activity in heat treated soya beans fed to weaned piglets, 87 (2000) 105

Tuna oil
Utilisation of fish oil in ruminants. I. Fish oil metabolism in sheep, 89 (2001) 189
Utilisation of fish oil in ruminants. II. Transfer of fish oil fatty acids into goats' milk, 89 (2001) 201

Undegraded intake protein
Effect of feeding undegraded intake protein at a level greater than National Research Council recommendation on the lactational performance of crossbred cows, 87 (2000) 95

Urea
Saccharomyces cerevisiae and nitrogenous supplementation in growing steers grazing tropical pastures, 83 (2000) 49
Feed intake, digestibility, plane of nutrition and live weight gain by crossbred growing bulls fed on grainless diets containing different nitrogen sources, 83 (2000) 195
Revival performance of growing buffalo calves fed on urea molasses liquid diet and roughage as survival feed, 87 (2000) 253

Urease activity
Effects of dry matter content on trypsin inhibitors and urease activity in heat treated soya beans fed to weaned piglets, 87 (2000) 105

Urinary spot sample
Effect of form and of quality of feed on the concentrations of purine derivatives in urinary spot samples, daily microbial N supply and predictability of intake, 85 (2000) 223

Urine output
Effect of form and of quality of feed on the concentrations of purine derivatives in urinary spot samples, daily microbial N supply and predictability of intake, 85 (2000) 223

Veal calves
The effect of four fibrous feed supplementations on different welfare traits in veal calves, 84 (2000) 129

Vertical structure
Vertical distribution of biomass, chemical composition and pepsin—cellulase digestibility in a perennial ryegrass sward: interaction with month of year, regrowth age and time of day, 84 (2000) 49

VFA production
Feeding ground and pelleted hay rather than chopped hay to ponies. 2. Consequences on fibre degradation in the cecum and the colon, 87 (2000) 131

Vicia sativa
Lupinus luteus, *Vicia sativa* and *Lathyrus cicera* as protein sources for piglets: ileal and total tract apparent digestibility of amino acids and antigenic effects, 89 (2001) 1

5-Vinyl-1,3-oxazolidine-2-thione
Chemical changes and influences of rapeseed antinutritional factors on lamb physiology and performance. 3. Antinutritional factors in plasma and organs, 85 (2000) 111

Viscosity
The effects of sepiolite in broiler chicken diets of high, medium and low viscosity. Productive performance and nutritive value, 85 (2000) 183
Effect of methods of analysis and heat treatment on viscosity of wheat, barley and oats, 88 (2000) 1
Intestinal development and body growth of broiler chicks on diets supplemented with non-starch polysaccharides, 89 (2001) 175

Vitamin
Carotene content of *Azolla* and its variations during drying and storage treatments, 84 (2000) 295

Vitamin E
Effects of supplementation with vitamin E on the performance and the tissue peroxidation of broiler chicks and the stability of thigh meat against oxidative deterioration, 89 (2001) 165

Volatile fatty acids
Effect of dietary fibre source on total tract digestibility, caecum volatile fatty acids and digestive transit time in the weaned piglet, 87 (2000) 71
Supplementation of graded levels of *Desmodium intortum* hay to sheep feeding on maize stover harvested at three stages of maturity. 2. Rumen fermentation and nitrogen metabolism, 87 (2000) 215

Voluntary intake
Effect of selective consumption on voluntary intake and digestibility of sorghum (*Sorghum bicolor* L. Moench) stover, cowpea (*Vigna unguiculata* L. Walp.) and groundnut (*Arachis hypogaea* L.) haulms by sheep, 84 (2000) 265

Water holding capacity
Characterisation of feedstuffs for ruminants using some physical parameters, 86 (2000) 53

Weanling piglet
Bioavailability of iron from amino acid complex in weanling pigs, 86 (2000) 39

Welfare
The effect of four fibrous feed supplementations on different welfare traits in veal calves, 84 (2000) 129

Wheat
Effects of different grinding methods and particle size of barley and wheat on pig performance and digestibility, 83 (2000) 1
Correlation between physical measurements and dietary energy values of wheat for poultry and pigs, 84 (2000) 1
Rumen digestibility of starch and nitrogen in near-isogenic lines of wheat, 85 (2000) 33
Effect of methods of analysis and heat treatment on viscosity of wheat, barley and oats, 88 (2000) 1

Wheat bran
Feed intake, digestibility, plane of nutrition and live weight gain by crossbred growing bulls fed on grainless diets containing different nitrogen sources, 83 (2000) 195
Nutritive value of coarse and fine wheat brans for rabbits, 88 (2000) 239

Wheat middlings
Storage of pelleted wheat middlings in farm bins, 88 (2000) 47

Wheat straw
Revival performance of growing buffalo calves fed on urea molasses liquid diet and roughage as survival feed, 87 (2000) 253

Whole seed
Nutritional evaluation of cardoon (*Cynara cardunculus*) seed for ruminants, 87 (2000) 203

Wilting
Effect of silage dry matter content and rapeseed meal supplementation on dairy cows. 1. Milk production and feed utilisation, 84 (2000) 213

Xylanase
Interactions between dietary fat type and enzyme supplementation in broiler diets with high pentosan contents: effects on precaecal and total tract digestibility of fatty acids, metabolizability of gross energy, digesta viscosity and weights of small intestine, 84 (2000) 279
Exogenous enzymes in monogastric nutrition — their current value and future benefits, 86 (2000) 1
Effects of fungal enzyme preparations on hydrolysis and subsequent degradation of alfalfa hay fiber by mixed rumen microorganisms in vitro, 88 (2000) 153

Yeast culture
Saccharomyces cerevisiae and nitrogenous supplementation in growing steers grazing tropical pastures, 83 (2000) 49
Effect of a yeast culture (*Saccharomyces cerevisiae*) and monensin on ruminal fermentation and digestion in sheep, 83 (2000) 165
The effects of feeding monensin and yeast culture, alone or in combination, on the concentration and generic composition of rumen protozoa in steers fed on low-quality pasture supplemented with increasing levels of concentrate, 84 (2000) 121